

THE RAILWAY GAZETTE
A Journal of Management, Engineering and Operation
INCORPORATING
Railway Engineer • TRANSPORT • The Railway News
The Railway Times • Herapaths Railway Journal
RAILWAYS ILLUSTRATED • ESTABLISHED 1835 • THE RAILWAY OFFICIAL GAZETTE

PUBLISHED EVERY FRIDAY

AT

33, TOTHILL STREET, WESTMINSTER, LONDON, S.W.1

Telegraphic Address "TRAZETTE PARL., LONDON"

Telephone No.: WHITEHALL 9233 (12 lines)

Annual subscription payable in advance and postage free

British Isles and Abroad £2 5s. 0d.

Single Copies One Shilling

Registered at the General Post Office, London, as a Newspaper

VOL. 87 No. 6

FRIDAY, AUGUST 8, 1947

CONTENTS

	PAGE
Editorial Notes	141
British and American Passenger-Train Travel	143
The Transport Bill	143
Unprecedented Partition of a Major Railway	143
L.M.S.R. Motive-Power Organisation	144
Railway Power Plant Reviewed	145
High-Capacity Wagons	146
Letters to the Editor	147
The Scrap Heap	148
Overseas Railway Affairs	149
Doubling the Gotthard Line	150
Partition of the North Western Railway of India	151
Rebuilt 4-8-4 Compound Locomotives for French National Railways	153
Standard Tool Vans for Breakdown Trains	154
Memorial to Swiss Electrical Engineer	154
St. Pancras Station Track Renewals, L.M.S.R.	156
Personal	159
Argentine Railways Sale Meetings	161
The Transport Bill	162
Parliamentary Notes	162
Questions in Parliament	162
Notes and News	165
Official Notices	167
Stock Market and Table	168

DIESEL RAILWAY TRACTION

The August issue of this RAILWAY GAZETTE Publication, illustrating and describing developments in Diesel Railway Traction, is now ready, price 2s.

1947-1948 Edition now ready

UNIVERSAL DIRECTORY OF RAILWAY OFFICIALS AND RAILWAY YEAR BOOK

Particulars and List of Officers of 2,100
Railway Administrations throughout the World

Price 20s.

Post Free 20s. 6d.

THE RAILWAY GAZETTE
33, TOTHILL STREET, WESTMINSTER, S.W.1.

Higher Railway Charges

THE long-expected announcement by the Minister of Transport of a further increase in railway fares and charges was made in the House of Commons on Tuesday last. Mr. Alfred Barnes said it was estimated that the pool of railway revenues would fall short of the fixed annual sums payable to the railways under Control Agreement by about £59 million in 1947, and £65 million in 1948. The Government had decided that charges must be increased to such an extent as would produce additional revenue of about £65 million in 1948, and make some contribution to reduce the liability falling on the Exchequer this year. The railway charges are to be raised to 55 per cent. above pre-war level with effect from October 1. This will represent an increase of 16½ per cent. in the case of ordinary passenger fares and rates for merchandise by passenger train, and of 24 per cent. in the case of other rail charges. Hitherto, there has been some differentiation in the rates of increases over pre-war level as between passenger and goods traffic, but this is now to cease.

Bank Holidays and Staggering

After the heavy passenger travel which occurred during the last week-end in July, the holiday traffic by rail at the Bank Holiday week-end did not reach such heavy dimensions, and at some London termini traffic was unusually quiet in comparison with Bank Holiday Saturdays of other years. In some cases, it was reported that arrangements for running certain relief trains were not put into operation. There is no doubt that the incidence of Bank Holidays tends to create a peak in travel whether it be the actual week-end after which the Bank Holiday occurs, or on that preceding it. On a number of occasions we have suggested that as the general health of the people would seem to be catered for adequately by the arrangements for holidays with pay, and as Bank Holidays in themselves contribute nothing to efficiency, but, by producing yet another break in business and trade, detract from it, there would seem to be a case for considering their abolition. When Lubbock's Bank Holiday Act was passed in 1871, it was based on admirable motives, but these holidays have now outlived their usefulness. It is increasingly clear that the outstanding need of the time is not more holidays, but more work.

Misinterpretation of Statistics

In last week's issue we referred briefly to an article by Sir William Wood, President of the L.M.S.R., which was published in the *Sunday Express* of July 27. Space did not permit us to comment on all the interesting matter that article contained, but we are pleased to note that Sir William Wood dealt with a matter which, although clear enough to our readers, is often the subject of misinterpretation in the daily Press. It has been stated that the average speed of passenger trains is 15 m.p.h., and of freight trains 9 m.p.h., and that this shows waste and inefficiency in railway operation, but Sir William Wood explained that these figures are a combination of train-miles and train-hours, which produces an index of the use made of locomotives. It is not speed; locomotive-miles in hours include all kinds of movement other than train running, such as empty trips between depots and terminals, and intervals between trains where the locomotive is not used for other purposes. He added pertinently that no one suggests that the average speed of a motorcar can be calculated by dividing the total miles run by the total hours away from the garage.

New Headquarters for Institute of Transport

Mr. R. Stuart Pilcher, President of the Institute of Transport, has now informed members that the Council has secured the headquarters to which reference was made in our issue of July 18. The Institute has purchased the lease of No. 80, Portland Place, London, W.1, which is within five minutes walk of Oxford Circus, and only a few minutes from Regent's Park and Great Portland Street Underground stations. The building should provide a worthy home for the Institute, with excellent amenities for the pursuit of its objects, including a common room, library, and conference rooms. With the acquisition

of the building, added stimulus will be given to the appeal for contributions to the Endowment Fund, which amounts already to over £60,000, and the target for which is £100,000. This latter sum will be necessary if the new premises are to be used to the maximum to promote the work of the Institute.

Overseas Railway Traffics

The first four weeks of the new financial year show aggregate declines on the Entre Rios and the Argentine North Eastern of ps. 114,900 and ps. 63,200 respectively. Central Argentine results, although still ps. 474,760 behind the preceding year, have gained ps. 135,455 in the past fortnight. A recovery in Buenos Ayres Great Southern receipts occurred in the fourth week, following a setback of ps. 368,000 in the preceding seven days, reducing the loss on the fortnight to ps. 78,000. Traffics on the Buenos Ayres Western, however, have shown improvements in both weeks, totalling ps. 180,000, and are ps. 370,000 ahead on the aggregate. For the 52 weeks to June 30, North Western of Uruguay receipts recorded an advance £741. The Uruguay Northern result for the 52 weeks was £3,961 below the preceding year. Some results are compared below:—

	No. of week	Weekly traffic	Inc. or dec.	Aggregate traffic	Inc. or dec.
Buenos Ayres Great Southern*	4	3,606	+ 290	12,736	— 827
Buenos Ayres Western*	4	1,302	+ 148	4,947	+ 370
Central Argentine*	4	3,233	+ 123	11,798	— 475
Canadian Pacific	29	1,486,750	+ 195,000	42,222,750	+ 3,425,000

* Traffic returns in thousands of pesos

The Canadian National return for June shows an increase of £1,447,250 in gross receipts, but net earnings were £80,750 lower. For the six months to June 30, gross receipts increased by £6,521,000, but higher operating expenses caused a reduction in net earnings of £478,500.

Queensland Railway Problems Explained

In their report for 1945-46, the Queensland Government Railways reproduced some passages from "The L.M.S. Answers Your Questions," as an indication of the universality of many problems facing railway administrations today. A wider audience than normally can be reached through an official report is addressed in a booklet just published by the Queensland administration with the title, "Why Don't the Railways —?" In these pages the questions and criticisms of a travelling business man are answered by his fellow passenger, Will Brown, who is an administrative inspector in the Railway Department. It follows that Will Brown is in a favourable position to reply to his colleague, Robinson, with accurate and well-balanced information that leaves him usually with the last word. Robinson is prised skillfully out of his most cherished prejudices, and often is compelled to admit that he has not thought deeply about the subjects on which he has formed opinions. It is he who proposes in the end that his discussions with Brown should be published for the information of the public in general.

British-Owned Argentine Railways Sale

All the meetings in connections with the scheme of arrangement for the sale of the Argentine railways to the State have now been held. The result in the case of each class of stockholder has been overwhelming approval of the directors' proposals. Such little opposition as was raised at the meetings came mainly from pre-ordinary stockholders who felt that too high a price was being paid to the proprietors of the equity for their nuisance value, and from small minorities who sought further details of the proposed compensation to staff and directors. No disagreement on the principle of the sale of the railways to the Argentine Government was expressed at any of the meetings. The next step will be for the scheme of arrangement to go before the Court for confirmation. At that stage Mr. Austin Kavanagh, on behalf of certain preference stockholders, has stated that he will oppose the distribution laid down in the scheme. No date has yet been announced as to when the Court will sit for the purpose of considering the scheme of arrangement, but it is believed that the companies wish to press on with the business as speedily as possible.

St. Pancras Track Renewals

Substantial progress has been made with the work of renewing the whole of the permanent way for 240 yd. out of St. Pancras, L.M.S.R. No fewer than 40 sets of points and 50 crossings are being replaced, and the work is being carried out in nine stages. To facilitate this, the unusual step has been taken of closing the station to traffic either wholly or partly at week-ends from June 15, and the climax of the programme was reached with stage six on Sunday, July 27, when the station was closed to traffic; it was also partly closed until the afternoon of Monday, July 28. The St. Pancras track renewals constitute the most extensive and complex single feature of the L.M.S.R. track and signalling renewal programme, for the work involves not merely the renewal of the approach from the four-track lines to this important London terminus, with its seven platform roads, but includes substantial remodelling improvements. At the same time, signalling is being modernised, and the arches carrying the line over the L.M.S.R. stables are being reinforced. The trackwork was prefabricated and timbered by Taylor Bros. (Sandiacre) Ltd., and the whole of the work was laid out and marked for reassembling in that company's yard. Moreover, the sections of track included their signal equipment so far as practicable. The prefabricated sections were installed by crane, and a good impression of the week-end work on July 27 is given by the illustrations we reproduce on later pages.

Diesel-Electric Traction on the L.N.E.R.

With the object of relieving the difficulties caused by the non-availability of steam locomotive power and the shortage of good locomotive coal, the board of the L.N.E.R. has been giving serious consideration to the development of alternative methods of traction for main-line operation. The study which has been given to the subject, as the result of experience gained both in this country and in America, has led the directors to approve in principle proposals for a large-scale experiment involving the construction of 25 diesel-electric locomotive units designed for working that company's heaviest main-line passenger trains on the East Coast route between London and Scotland in replacement of express steam locomotives. The diesel units, each of 1,600 h.p. at the generator couplings, will be used in pairs to form 3,200 h.p. locomotives. The L.N.E.R. is confident that the proposal is fully justified, having regard not only to economy in operation but also to increased availability of locomotive power, higher acceleration, and better performance on adverse gradients. Steps are being taken to work out the scheme in detail, although some time must elapse before it can be implemented fully.

Petrol-Injection Engine for Road Vehicles

A new type of petrol engine for commercial road vehicles, which the makers claim is the first of its kind in this country, has been made available recently by John I. Thornycroft & Co. Ltd., in conjunction with the C.A.V. Research Laboratories. In this design, the carburettor is eliminated, and petrol is injected by a pump, directly driven by the engine, after the style of certain types of German aircraft during the war. With this type of engine, it is found that the torque is one-third greater than in the ordinary type with carburettor, and the horsepower is increased by 50 per cent. As there is no choke in the new petrol-injection engine, large-diameter inlet pipes are possible, thus giving a better volumetric efficiency. The compression ratio is 6.92/1, giving a compression pressure of 175 lb. per sq. in. and an explosion pressure of 650 lb. per sq. in. at 1,400 r.p.m. Cylinder heads of special design, with large ports, are necessary, and the exhaust manifold is water-cooled to reduce the amount of heat imparted to the fuel pump (which is mounted just below) and to avoid vapour locking. The inlet air passes through two Vokes filters, and an Amal flame trap is located in the breather pipe leading to the induction pipe. With ordinary Pool petrol of 70 octane number (specific gravity 0.745, and lower calorific value 18,300 B.Th.U. per lb.), the full-load consumption is 0.508 lb. per b.h.p.-hr. at 800 r.p.m., for a b.m.e.p. of 140 lb. per sq. in. The fuel/air ratio ranges from 13½/1 at full throttle to 14½/1 under economical cruising conditions. The engine has six cylinders, of 4½ in. (104.8 mm.) bore × 6 in. (152.4 mm.) stroke, giving a total swept volume of 7,880 cu. cm.

British and American Passenger-Train Travel

IN the first editorial note of our August 1 issue, we quoted Sir William Wood's statement that our railways are carrying far more passengers than the whole of the railways in the United States put together, and last year moved 29,231,000,000 passenger-miles, 54 per cent. more than in 1938. One or two more facts are needed to complete the contrast between British and American travel. The number of passenger-miles worked in the United States last year was 64,698,000,000, or two and one-fifth times our passenger-mileage. Though there were fewer passengers in the States, the average journey was three or four times the distance of 24 miles covered in this country. Over 15 per cent. of our passenger-miles represent season-ticket travel; the corresponding proportion in the States is less than 6 per cent.

In general terms, our passenger business is based on intensive services for short distances; in America services are sparse in comparison, but journeys are long. The further west you go in the States the more marked the contrast becomes. In 1940 the Atchison, Topeka & Santa Fe Railway operated eight passenger trains every day over 9,340 miles of road. These carried only 6,845,000 people, but the average length of journey was 588 miles and the average fare paid was nearly \$11. Before the war the average fare collected by our main-line railways was less than 1s.; in 1946 it was about 2s. 2½d.

An article in our January 31 issue pointed out that our railways kept a better hold on passenger business between the two wars than the U.S.A. railways succeeded in doing. After an artificial boom during the war years, the Association of American Railroads fears that the greatest deficit from passenger service in history seems likely in 1947, due to a potential decline of more than \$300,000,000 in passenger revenue because of reduced traffic. The number of passengers originating on our main-line railways decreased by 12 per cent. during the first quarter of this year, while for the first 28 weeks of the year receipts are down by nearly 6 per cent. It rather looks as though railway passenger travel on both sides of the Atlantic were returning gradually to a normal peacetime volume.

The Transport Bill

WHEN the House of Lords reconsidered the Transport Bill on July 29, the Marquess of Salisbury, Leader of the Opposition, expressed regret that the House of Commons had rejected so many of the amendments, and claimed that this action had been taken for political reasons only. He indicated, however, that, although it was not its intention to insist on the amendments which had been rejected, the Opposition proposed to send back to the lower House a limited number of amendments in lieu of those suggested by the Commons, which were designed genuinely to meet objections raised during the debates in that House.

Viscount Addison, for the Government, pointed out, however, that of the 210 amendments made by the Lords, 173 had been accepted by the Commons and the balance were rejected because they were calculated to defeat the main purpose of the Bill. The various modified amendments were then discussed, and four of them were carried against the Government, although one did not involve a division; in addition, the Government accepted one amendment tabled by the Opposition; the latter provides that the Minister shall appoint the various executives "after consultation with the Commission" instead of the original amendment which empowered the Commission and not the Minister to make the appointments.

The other amendments increase the radius of operation of the road haulier from 25 to 40 miles (instead of 50 miles as originally proposed by the Lords) as the limit inside which a vehicle is to be regarded as excluded from acquisition by the Commission; again seeks to put the burden of proof on the Commission that an undertaking comes within the scope of the Act, but this time with the proviso that the haulier concerned must first provide those conducting the inquiry with all the relevant information; provide that "A" and "B" licence holders should have the right of appealing to the licensing authority against what they consider to be unfair competition by the Commission.

The amendment carried against the Government without a

division also increased the operating radius of "A" and "B" licence holders from 25 to 40 (instead of 50 miles). The Bill was then sent back to the House of Commons, and was considered on Monday last, when the Lords amendments were rejected. If it is to receive the Royal Assent before Parliament adjourns, the matter will require immediate attention.

Unprecedented Partition of a Major Railway

SINCE the publication in our issue of July 18 last of an editorial entitled "Whither Indian Railways?," valuable information has come to hand regarding the division of the North Western Railway as between the Pakistan and Indian Dominions. This is embodied in the interesting and authoritative article on pages 151 and 152 in this issue, received from Mr. A. G. Hall, C.I.E., M.B.E., the General Manager of the system. He explains in detail the policy that is being adopted for the partition of the railway in accordance with the India-Pakistan provisional frontier, mentioned in the momentous announcement of partition on June 3, 1947. As well as Dominion partition, the division of both Bengal and the Punjab was entailed in the announcement, this division being in accordance with the boundaries of certain civil districts, on the basis of the majority population, whether Moslem or Hindu and Sikh. The door for further negotiation in respect of the frontier was kept open by the promise that a boundary commission would be appointed to consider, in greater detail, the claims of the two major communities and give a final award on the exact location. This commission, under the chairmanship of Sir Cyril Radcliffe, is still in session, and will give its final award on the frontiers of Eastern and Western Pakistan by August 10, five days before partition is to be effected.

As it was essential that an early start should be made on the partitioning of the North Western Railway, this was possible only on the basis of the tentative or notional boundary referred to in His Majesty's Government's announcement. The provincial boundary is shown in the map that accompanies the article. Losing no time, the North Western administration submitted a preliminary report on partition, giving the broad principles involved, on June 8. The first directive from the Government of India (Railway Board) was received on June 21, and this gave the terms of reference on which a full partition report was to be based. It also required that separation should be as complete as possible by August 15, the *de jure* date of partition, joint arrangements between the two Dominions being allowed only in respect of such operations as were manifestly impossible of separation by the due date, as, for instance, heavy locomotive and carriage repairs undertaken in the central workshops at Moghalpura, Lahore.

Among other requirements, the Railway Board's directive stated that, when partition was complete, relations between the two portions of the railway should approximate to those which existed between distinct railway systems in India before all the railways were taken under State management. Immediate consideration was directed to the arrangements necessary for the interchange of traffic (a) on the date of partition; (b) during an interim period of not more than six months; and (c) finally, after separation, complete in all respects.

Proposals were required also under a number of heads involving the division of assets, the execution of heavy repairs in a single central workshop, the allocation of stores, the division of earnings, and the accounting procedure to be introduced in the interim period and after separation. The Government of India at the same time ordered that the entire energy of all departments should be concentrated on business directly related to partitioning, such matters being given absolute priority over all other business, except that which was essential to the working of the railway.

The General Manager and all senior officers gave practically undivided attention to the matter, appointed sub-committees to deal with specific subjects, and completed their report in eight days, by June 30, for submission to the Technical Sub-Committee (Railways) of the Partition Council at Delhi. This Sub-Committee is balanced in that it represents both major communities equally. In case of disagreement, it can refer matters to higher levels for a decision. In all deliberations the greatest care was taken to ensure that divisions should be accept-

able to both sides, and the lack of any serious friction is a tribute to the reasonableness of each community.

It is gratifying to note that the proposals submitted by the North Western Railway—as outlined in Mr. Hall's article—have been accepted, generally, by the Partition Committee in Delhi, with only minor alterations. The task of carrying them out in the face of mass inter-Dominion movements of staff, governments, civilians, and troops is, however, immense. The first points to be noted are the complete concentration of the North Western administration on the ways and means of partition, and the submission (a) of its preliminary report within five days of the Government announcement, and (b) of its full report within eight days of the receipt of the Railway Board's directive. Meanwhile, the complex problems of frontier junction points and traffic interchange requirements were being threshed out, and equitable bases for distribution of engines, rolling stock, stores, and other assets were being devised and agreed.

Questions of workshop repairs, bridge, signal, and permanent way stocks had also to be considered, not to mention those of fixed assets and accountancy under the new conditions. One of the greatest undertakings to be faced was the interchange of some 30,000 Hindu, Sikh, and Moslem employees of the railway, their families and belongings; and the movements of Government staffs and military units at a time when the country was so unsettled and whole populations also were migrating. In all these transfers of personnel, some hundreds of thousands of individuals are, and will be, involved, and their completion will be a great achievement. In fact, the North Western administration—probably weakened by day-to-day interchange of officers—has been confronted with a herculean task, which it appears to be carrying out with conspicuous success.

As Mr. Hall remarks, it is probably the first time in history that the partition of a major railway has been attempted so rapidly and at such short notice, and the incidental transfer of so many employees and their families in so short a space of time must surely be unique.

L.M.S.R. Motive-Power Organisation

THE task of a Motive-Power Superintendent calls for exceptional powers of administration at any time. A judicious balance must be struck between the maintenance of locomotives in the highest condition of thermal and mechanical efficiency, the punctual working of trains, and the achieving of maximum use from a minimum number of locomotives. These three factors are not natural corollaries. The Motive-Power Superintendent's position, with direct responsibility towards both the traffic department and the Chief Mechanical Engineer, is one in which the closest liaison and constant co-operation is essential. On a system of the size of the L.M.S.R., where in recent years the basic policy has been not merely to reduce the number of different types, but also greatly to reduce the total locomotive stock, the organisation necessarily must be of a high order.

We have received recently from the L.M.S.R. a copy of a book* prepared by Colonel H. Rudgard for the use of the Motive-Power Staff. It is divided into seven sections dealing respectively with:—

- (1) Motive-Power Organisation and Stores;
- (2) Foremanship, Repairing Engines, and Working Engines;
- (3) Discipline and Factory Acts;
- (4) Locomotive Inspectors and Firing Instructors;
- (5) Standard Practices, Modernisation, Casualty and Examination Schemes, Repair and Shopping of Locomotives;
- (6) Operating and Organisation as it affects motive-power supervisory staff, including outdoor machinery services.
- (7) Diesel locomotives and railcars.

The mere recitation of these sections is enough to show the wide scope of the book; but each subdivision is compiled in the most exhaustive manner, and a comprehensive index enables any subject to be turned up instantly. Referring to these sections in his Foreword, Colonel Rudgard writes: "When these are read by the younger members of our super-

visory staff who are in line for promotion, they will have the advantage of accumulative knowledge of years, which will enable them to develop their minds in the most efficient way of getting value from drivers, firemen, static staff, machines, and coal. Another object is with a view to assisting those concerned to realise what is in the mind of the management with regard to the various aspects of the sections of this department in order to train them for greater responsibility and to ensure a common outlook towards their work by the supervisory personnel of the Motive-Power Department."

In the first part of the book, which is devoted to a statement of the duties covered by supervisory staff, from the District Locomotive Superintendent downwards, it is not enough for the general organisation to be explained lucidly; the accompanying notes show a deep appreciation of the human side, and there are numerous points of advice to those who have to deal with cases of discipline. The importance of the Locomotive Inspector is stressed in maintaining a high standard of work on the road. The following paragraph aptly summarises this section of the book: "Inspectors' duties bring them in close contact with the men who operate the locomotives, and as footplate staff differ greatly in temperament, a considerable amount of tact and discretion is necessary in dealing with them in order to maintain a correct relationship between them and the Inspectors, and to build up an atmosphere of mutual confidence and respect which must be obtained so as to secure the necessary efficiency in Drivers, Passed Firemen, Firemen, Passed Cleaners, and Cleaners."

From the engineering viewpoint, the sections dealing with the examination and running repairs of locomotives are of great interest. A principle of operation which aims at maximum use of the stock, with intensive rostering, demands also a high state of mechanical efficiency, as time for examination and incidental repair is limited. The present L.M.S.R. scheme for examination and repair in the running sheds is based on the periodic stopping of the engine for washing out of the boiler. Engines having a boiler pressure of 200 lb. per sq. in., and over, are washed out every 12-16 working days, and those having a pressure of less than 200 lb. every 24-32 working days. The stopping of an engine for boiler washout provides an opportunity for thorough examination, and under what is termed the "X" scheme engines are given a periodic examination, and such repairs as necessary are done. This is no mere perfunctory routine. Repairs are carried out efficiently, with the intention that the engine will run to the next "X" examination with little or no attention. The agreed period is 12-16 working days for all engines, with the exception of the express passenger Pacific engines, for which it is 6-8 working days, and for freight tank engines engaged in yard shunting, for which the agreed period is 24-32 days.

The matter of reporting locomotive casualties naturally is given prominence. The system now in use is an extension of that adopted on the former Midland Railway. Colonel Rudgard was closely associated with the late Sir Cecil Paget in bringing into being this method, which aims at determining the root cause of any particular casualty with the object of eliminating similar ones in future. The dangers of too much centralisation of control are emphasised in the following significant paragraph. "In the first years after amalgamation, the casualty system was operated from headquarters, but a change has been made and the present instructions provide for all casualties being reported by District Locomotive Superintendents to their respective Divisional Operating Manager. The Divisional Operating Managers and Operating Manager, Glasgow, submit four-weekly statements of casualties under the following headings to the Superintendent of Motive Power:—

1. Summary of debitable casualties. A debitable casualty is defined as a mechanical casualty where three or more minutes have been lost.

2. Analysis of casualties—mechanical.

3. Analysis of casualties—other than mechanical."

The arrangements for reporting and collating details of casualties are elaborate, and the information so carefully gleaned provides an invaluable tool for detecting faults in maintenance and faults in design. So far as actual running is concerned, machinery exists for rapidly sending information if a locomotive is losing time with a passenger train while running under clear signals. We recall several occasions

* "Motive-Power Organisation and Practice," London, Midland & Scottish Railway. 5½ in. x 8½ in. 144 pp. For internal distribution

on the former Midland Railway when Control, receiving such a report, provided an assistant engine at short notice to restore an important train to its correct path as soon as possible; the principle still remains, though in these difficult times it is not so easy to provide assistant engines. Since grouping took place, the total locomotive stock of the L.M.S.R. has been reduced gradually from 10,346 to 7,717; thus for the Motive Power Department to fulfil its obligations in working the traffic the average engine-mileage per day has had to be increased considerably. That so large a reduction in total stock has been possible, is an impressive measure of successful co-operation between the Chief Mechanical Engineer and the Superintendent of Motive Power, the one in producing good designs and the other in their efficient maintenance and use on the road.

Railway Power Plant Reviewed

THE recent centenary celebrations of the Institution of Mechanical Engineers will be remembered as one of the most comprehensive events of its kind. In our June 6 issue we gave an outline of the programme; here, however, we will mention only the group of three short lectures dealing with railway power plant, delivered on June 12.

The aim of these three brief talks was to cover world practice, and to indicate probable trends, as far as was practicable within the severely limited time allotted to each lecturer. The three essays were notable contributions to railway literature; and, indeed, it can seldom have been the good fortune of any audience to hear the authoritative statements of policy of the four Chief Mechanical Engineers of the British main-line railways, as given in the first lecture "Railway Power Plant in Great Britain."

So concentrated was the discourse, moreover, that Mr. Bulleid, who presented it, was able to deliver it in half an hour, after which equally brief—and concentrated—lectures on "Motive Power Trends on European Railways" and "Railway Power Plant from the United States Point of View" completed the representative survey of world practice. The two latter reviews were written, respectively, by Mr. L. Armand, Le Directeur Général Adjoint, French National Railways, and by Mr. P. W. Kiefer, Chief Engineer, Motive Power & Rolling Stock, New York Central System. Although much interesting information relating to the practice in many of the Dominions, and many foreign countries too, had necessarily to be omitted, it was generally agreed that the three lectures gave the most useful and concise view possible of the three chief schools of locomotive engineering.

The survey of British practice revealed the marked individuality still possessed by the four main-line companies, as reflected in their locomotive policies. Thus, we find the L.M.S.R., although its engines are already largely standardised, pushing that policy still farther and listing ten types to serve for all requirements. Of these, only the small 2-6-0s and 2-6-2 tanks are new designs. The wartime lessons of the value of self-cleaning smokeboxes, rocking grates, and self-emptying ashpans have been well learned, and these features are to be perpetuated in all except shunting locomotives. The most significant announcements regarding new design details are that two 4-6-2s and twenty 4-6-0s are to have roller bearings for all wheels; and twenty 4-6-0s (ten from among those with roller bearings) are to have Caprotti valve gear with a new totally-enclosed drive.

The L.N.E.R. states that eight standard designs are being adhered to; large numbers of several of these types are to be built. Poppet valves are regarded as a logical future development; if piston valves are to stay, their diameter could be increased with advantage. Mileages, although unlikely to approach American records (200,000 between overhauls) can be raised by a controlled system of boiler-water treatment throughout the whole line.

Standardisation questions do not worry the G.W.R., for that policy is already operating there to a more marked extent than on any of the other railways. The most important recent contribution has been the development of an efficient oil-burning system, now adopted by the other companies as standard.

Southern Railway tendencies are influenced largely by the plan to divide the railway into two parts, the eastern part being worked chiefly by electric traction, eked out by diesels

on lines not electrified, whilst the steam locomotive is retained for the western part. The chief novel features of the "Merchant Navy" and "West Country" engines are enumerated, and one's imagination is whetted by some tantalisingly brief details of the mixed-traffic tank engine under construction, which is to run on two six-wheel bogies. The laconic statement runs "... A new design of engine has been adopted, completely eliminating all piston or valve glands subject to steam pressure. Roller-bearing axleboxes are fitted throughout and the usual horn guides suppressed. A new design of boiler has been introduced without the usual water legs, so that stay trouble has been eliminated. ..." We have learned, however, to expect surprises from the Southern in matters of locomotive design, and it would seem that when the new engine appears we shall not be disappointed.

Diesel traction comes in for some attention, chiefly on the L.M.S.R., where it is to be tried experimentally on main-line operation, and on the Southern, where no less than four types (one of which is an existing design, for shunting) are to figure in future construction. On the L.N.E.R. a diesel railcar building programme has been proposed. The G.W.R., however, frankly favours the gas turbine to the diesel engine as an alternative to steam power, claiming that, though inferior to the diesel in overall efficiency, its prime cost is likely to become stabilised at a lower level, and with it no elaborate maintenance organisation is needed. The Southern Railway is breaking new ground, at any rate in England, by exploring the possibilities of a gas-turbine locomotive to burn coal, as our natural fuel, instead of imported oil.

Electric traction developments in this review virtually are confined to the Southern Railway; in addition to the multitude of motor coaches and trailers for multiple-unit working, and the two existing $C_0 + C_0$ mixed-traffic locomotives, a new design for a high-speed electric locomotive is under consideration.

Mr. Armand's excellent review of Continental practice, although referring to developments in Germany, Austria, Sweden, Switzerland, and Spain, took French practice as his main theme and showed how after a period of serious experimentation with special types (for example, the Velox boiler and Winterthur high-pressure locomotives, and the Schneider machine with individual axle drive), the conclusion generally was reached that the complexities of these engines nullify the advantages offered, and that simplicity is a great virtue in locomotives. Simplicity is the steam locomotive's chief advantage over other forms of motive power. Indeed, the steam locomotive will probably follow and reach the climax of its development within the confines of the conventional Stephensonian type.

Conventional steam locomotives now show the following trends: the adoption of increased axle loading; larger boilers, with thermic syphons as standard in many cases, and welded-steel fireboxes; water treatment carried out in the tender itself; the use of mechanical stokers; and a change from four cylinders to three, for the larger machines, with compounding in certain important new designs. Robustness of construction is highly regarded as a factor in promoting long daily hauls and in making for low maintenance costs.

Diesel locomotives figure in a French project for placing 300 such machines in service, for shunting duties. The gas-turbine locomotive built by Brown Boveri is exciting much interest in France, where it has run 54,000 km. in 1946 on trial trips. One feels, however, that the electric locomotive remains the principal alternative to steam traction on the Continent. In electric traction, the general trend is towards total-adhesion types, as exemplified by the New B_0B_0 type of the Berne-Loetschberg-Simplon Railway. Total weight and overall length for given power are being reduced in new types. Nose-suspended motors seem likely to disappear from most European railways. Motors completely hung on the frames appear to give remarkably little trouble.

In many ways, Mr. Kiefer's survey of present American practice is of quite outstanding value. He approaches his subject differently from the other lecturers and conveys his findings either by graphs or by tables of mileages, operating and maintenance costs, availability percentages, and other vital statistics. Consequently his statement is far more factual than the other two lectures, and he views all his different forms of motive power "in parallel," each having characteristics which fit it particularly well for certain fields of usefulness.

He considers that the reciprocating steam locomotive can be further improved by providing greater freedom from failures and detentions *en route*, and by reducing time now used for servicing, maintenance, and inspection. In the last 20 years engine weight per i.h.p. has been reduced by over 30 per cent., whilst drawbar pull and horsepower developed have risen by over 100 per cent. Turbine locomotives, mechanical stoker-fired and pulverised-fuel fired, come in for special mention, as also does the building of two coal-fired gas turbine locomotives for delivery during 1948.

The remarkable increase of diesel locomotives in the U.S.A. is mentioned; it is all the more striking when it is realised how very recent this new development is. Some 88 diesels are in use on the New York Central System alone, and more are contemplated.

The analysis of the merits of different forms of motive power, which forms the most interesting part of Mr. Kiefer's lecture, is based on four fundamentals: (1) availability and its dependent counterpart, utilisation; (2) overall costs of ownership and usage; (3) capacity for work; and (4) performance efficiency.

Some of the facts emerging are astonishing to those used to British conditions—annual mileages of 288,000 for steam locomotives would be difficult indeed to attain in this country, where even long-distance trips are brief compared with the vast mileages of American runs. In passenger service, availability is given as 69 per cent. for the steam locomotive against 74 per cent. for a diesel-electric, whilst in freight service the corresponding percentages are 66 and 73. Referring to items (1) to (4) in the preceding paragraph, on the New York Central the electric locomotive appears to have the best of it for items (1), (3), and (4), whilst steam and diesel power are bracketed together as the most satisfactory for item (2); but Mr. Kiefer wisely says "each railroad should establish its own figures to determine the advisability of using the different types of power shown."

High-Capacity Wagons

(From a Correspondent)

THE editorial note in *The Railway Gazette* for July 11 gave information in regard to the efforts made by various railways to increase the average wagon load of low-grade traffic, but indicated that little had been, or could be, done in this connection so far as traffics in classes 7 to 21 are concerned.

One of the directions in which the railways have experienced acute competition from road, is in the conveyance of wagon-load traffics like grain, oilcake, and packed manure. It is a characteristic of the grain business that the supplies are drawn from a wide area, and the number of originating points therefore is extensive, whereas the destination stations are relatively few in number. In connection with feeding stuffs and packed manure, the reverse proposition applies; that is, the traffic is distributed from a limited number of forwarding points to a wide area.

It would strengthen the hand of the railways in a competitive sense, lead to economy in working, and render it possible to use big wagons, if this traffic could be concentrated at central points, at which the grain could be collected, and from which the other commodities mentioned could be delivered. It would also provide a means of extending the co-ordination of rail and road activities.

To take the old North-Eastern system as an example, as this is the area with which the writer is most familiar, the sketch map appended shows at what points traffic might be concentrated, together with the principal destinations for grain and the forwarding points for oilcake and packed manures:—Instead of wagons containing 2, 4, or 5 tons being loaded to a number of wayside stations within a radius of 5 or 10 miles of each other with oilcake or packed manure, or from such stations with grain, one 15- or 20-ton box wagon would be used to convey the traffic to or from a nominated centre, from which delivery and collection would be carried out by road. The idea would be to fix up something like a shuttle service; for example, a 20-ton load of oilcake might be made up, once, twice, or thrice weekly, in accordance with traffic requirements, from Hull to Malton

for distribution within a few miles radius of that centre; then the wagon would be used to convey grain from Malton to Leeds or Wakefield, and the round trip would be completed with a load of general merchandise from Leeds or Wakefield to Hull. Summarised, a scheme on these lines would appear to have the following advantages:—

(1) A certain amount of economy in wagon user would be obtained by loading the traffic in one big wagon to or from a central point rather than using smaller wagons to or from a number of wayside stations.

(2) It should result in a saving in shunting and train working expenses. A good deal of difficulty is often experienced in detaching and attaching vehicles at wayside stations



Suggested traffic concentration points in the North-Eastern area

in the vicinity of the larger centres, because, as these centres are approached, the traffic density is increased; this particularly applies on the main lines where there is a heavy passenger traffic.

(3) Co-ordination of rail and road. By concentrating traffic at a limited number of points, it should be possible to make more effective use of the road motor vehicles used on collection and delivery, than would be the case if these services had to be undertaken from a much greater number of small stations.

Probably, nearly all our 15- and 20-ton covered wagons are at present employed as road wagons, but there is no reason why more of these vehicles should not be built if it could be demonstrated that the extended use of wagons of this character would be a sound commercial proposition. Only experience could decide this, but the scheme propounded offers possibilities of developing bulk transport and thus increasing the average wagon load.

The day has gone when railway companies could, in their efforts to increase the wagon load and thus secure economy in wagon user, insist on traders loading, say, an extra 50 bricks per wagon, even though this might involve some disturbance of the brick-makers' loading arrangements, and to get the full co-operation of firms in a nominated loading scheme, it would probably be necessary to offer an inducement. A small percentage reduction for 20-ton lots would probably meet the case.

LETTERS TO THE EDITOR

(The Editor is not responsible for the opinions of correspondents)

Seats in L.P.T.B. Experimental Cars

Vi-Spring Products Limited,
Vi-Spring Works,
Willesden Junction, N.W.10. July 28

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—On page 66 of the July 18 issue, in your article dealing with the London Transport's new experimental cars, at the foot of column one, you make use of the following expression: "The seats are of the semi-bucket type and provide a width of 1 ft. 8 in. per passenger. Two of them are upholstered with Dunlopillo expanded-rubber cushions."

In view of the fact that the whole of the remaining spring fillings of the prototype coach were supplied by this company, and that we are now providing, and have for many years provided, a large proportion of their spring fillings, we feel that, in fairness to all concerned, it should be made known that the remaining seats in the coach have been fitted with spring fillings supplied by Vi-Spring Products Limited.

Yours faithfully,
A. E. HALES,
Managing Director

Possible Winter Transport Difficulties

London, N. July 28

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—In your issue of July 25 you dealt suitably with Mr. Herbert Morrison's alarmist statement about a possible shortage of wagons later in the year, though he cannot have suggested that one of the things to be done was "to secure the co-operation of industry and consumers by increasing the turn-round time of wagons." He must have said "in improving the turn-round."

As the Government has known since 1943 that the state of freight rolling stock was deteriorating rapidly, it is a little late in the day for Mr. Morrison to declare that the whole position is being tackled as a matter of high priority and urgency. Clearly, it is a matter of the first degree of priority, and Governmental policy is largely responsible for the shortage of steel plate which hampers the building and repairing of wagons. Energy is being spent on capital works, which the country cannot afford, instead of on the essential task of restoring transport facilities which were weakened during the war.

In June, the Minister of Transport started the construction of a tunnel under the River Tyne between Howden and Jarrow. His department will pay 75 per cent. of the cost of this work, which will absorb materials and labour wanted for purposes vital to our safe passage through the economic emergencies threatening the national well-being.

Yours faithfully,
NESTOR

Speed Estimating by Locomotive Drivers

Smiths Industrial Instruments Limited,
Cricklewood Works,
London, N.W.2. July 24

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—It is rather surprising to realise, from reading the article in your issue of July 4, that such essential information as speed is still a matter of crude estimation by such methods as counting telegraph poles and rail beats—methods which seem out of line with present-day advances in instrumentation.

It can be appreciated that an experienced driver can reach a fairly high degree of accuracy when working over a familiar section of track, but it has been found that in other fields of industry it is necessary to supplement human judgment with some form of instrumentation, and it is logical to assume that this is also true in the case of a locomotive; moreover, the problem of new drivers must continually arise.

On the majority of overseas railway systems, locomotive speedometers are standard fittings, and it should be pointed out that such instruments are available in this country, of British design and manufacture, capable of indicating speed with a high degree of accuracy.

Practically all prime movers, whether they be for land, sea, or air, are fitted with some form of instrument to indicate speed, and particularly does this apply to their application to mobile vehicles, even down to the mass-produced automobile. Such instruments, when specially designed for locomotives, can give immediate and continuous indication of speed without diverting the attention of the locomotive crew to passing objects at 90 deg. to the forward line of vision.

It would have been thought a necessity to have some indicating instruments of this nature, not only from the point of view of track restrictions, but also to make best use of the rigid running schedules demanded by the high-density traffic working on our railway systems.

In the light of experience gained during the war with various classes of instrumentation, operating under conditions even more severe than those met in railway working, the adoption of instruments embodying recent advances would, we suggest, assist the advance toward safer rail travelling conditions.

Yours faithfully,
G. V. HARVEY
Technical Sales Department

Pioneer Main-Line Electrification

London & North Eastern Railway,
Dorset Square, London, N.W.1. July 29

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—In your excellent editorial about the old L. & Y. in your issue of 18th July, you incorrectly credited that railway with the first main-line electrification in this country. Actually, the North Eastern beat the L. & Y. by a short head, for on March 29, 1904, it inaugurated electric traction between Newcastle (New Bridge Street) and Benton, the first stage of the Tyneside electrification. The L. & Y. Liverpool-Southport electric trains started running a week later, on April 5.

Yours faithfully,
GEORGE DOW
Press Relations Officer

[Though the L. & Y. was beaten in the date, it was ahead on mileage, the Liverpool to Southport line being 18½ miles long, whereas the distance from Newcastle to Benton is a little under 5 miles.—Ed. R.G.]

Lightweight Traction Motors

5, Yewlands Crescent, Fulwood,
Nr. Preston, Lancs. July 25

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—I agree with Mr. Harper [see our July 18 issue—Ed., R.G.] that the insulated return earth brush does not provide complete protection for roller axleboxes and roller-type motor suspension bearings, but as far as I am aware, damage might be caused to those bearings only in the case of an earth fault on the electrical equipment, including the arcing of a collector shoe to the bogie frame; but I do not know whether damage would be aggravated because of the brush being insulated.

With motors equipped with sleeve-type suspension bearings, I do not think any brush is justified because, as Mr. Harper points out, even though they be fitted, very little of the return current passes through them.

I do agree that the complete insulation of the axlebox, when fitted with roller-type bearings, is worth serious consideration, especially now that fabric-type linings are available for horn guides, which should make the insulating of them practical and satisfactory. This should give complete protection to the axlebox if it was also shielded from the shoe arc.

It is felt that roller-type motor suspension bearings are really a desirable feature, so steps were taken to prevent premature failure due to current passing through them. The insulating of the motor suspension bearing presents considerable difficulties. Several designs of insulated sleeves were sketched at the time the motors I referred to were being manufactured, but as they appeared weak mechanically, and as other problems cropped up, this arrangement was turned down in favour of the insulated brush.

Apropos of collector shoes, I have often wondered why the spring-loaded type of shoe has not been more widely used in this country. The type I have in mind has its movable elements in the form of a ferrous casting hinged to its base plate, and contact pressure is maintained by the spring, which, of course, allows it to rise and fall more rapidly than a gravity-type shoe when irregularities of the rail are met, with consequently less arcing. Also, the length required along the shoebeam for fixing is usually less, giving more creeping distance from the axleboxes. This higher contact pressure should be a help to combat ice conditions.

Yours faithfully,
H. CHARNLEY

SEVERN BRIDGE SCHEME APPROVED.—Sanction has been given by the Minister of Transport to the construction of the Severn Bridge, with its approach roads, at a total cost of about £9,000,000. The scheme will take several years to complete, and preparatory work for the foundations of the main piers, anchorages, etc., is nearing completion.

The Scrap Heap

M.P. AND B.B.C.

On Monday, August 4, the Speaker took the chair at half-past 2 o'clock.

Sir W. Smithers (Orpington—C.) rose to put a point of order. He said: Before we begin our business for today, Mr. Speaker, may I call your attention to the B.B.C. this morning omitting to commence their broadcast programmes with the playing of the National Anthem on the occasion of the birthday of Her Majesty the Queen? Will you, Sir, as first Commoner, summon the Directors of the B.B.C. to the bar of this House as traitors to their King and country?

The Speaker.—It is not a matter for me to deal with as a point of order. It is a matter for the House.

LOBSTERS BY RAIL

I hope the publicity given in your columns to the transport of animals will have effect. At Waterloo, I saw recently piled up on the platform narrow crates labelled "Live lobsters." How long these creatures had been nailed up and how long they would remain so I do not know, but this seems to me a barbarous and deplorable practice.—S. Knowles, in a letter to "The Times."

This drew the following response from Mrs. P. K. Baillie Reynolds:—

'Tis the voice of the Lobster, I heard him complain

"I have suffered too much in this horrible train."

As a man in a carriage, so he in his crate,
Is packed by the dozen in space meant for eight.

I passed down the platform, and sadly observed
That while lobsters' compartments at least

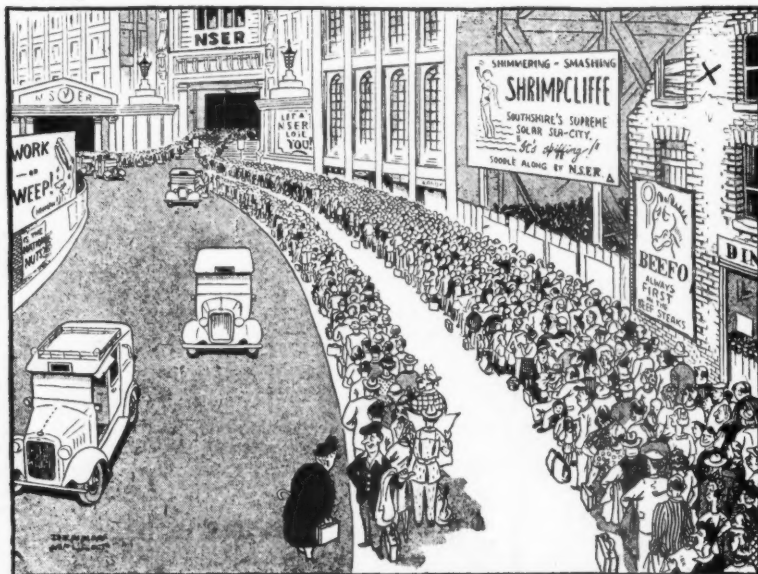
are reserved,
A mother with children must queue half

the day
For the pleasure of standing the whole of

the way.

Smiling Through

with Dennis Mallet



"No, Madam, THAT'S the Prawnsmouth queue. This is just the queue for taxis to the end of it"

[From the "Sunday Graphic"]

THE PLOTTER!

Scene: Victoria Station. Platform lined six-deep with holiday-makers waiting to scramble for seats on incoming train.

As train draws in, a large woman turned angrily to her meek little husband and demanded: "Why must you *always* arrange for us to stand opposite a luggage van?"—G. A. Weller in "The Recorder"

100 YEARS AGO

From THE RAILWAY TIMES, Aug. 7, 1847

LONDON AND NORTH-WESTERN RAILWAY STATIONS ON RUGBY AND STAMFORD LINE.—To BUILDERS and Others.—The Directors of the London and North-Western Railway Company are desirous of receiving TENDERS for the construction of the several STATIONS on the Rugby and Stamford line, between Rugby and Luffenham.

The quantities, drawings, and specifications may be inspected on and after Thursday, August 12th, at the Eagle Hotel, Rugby, and the tenders must be delivered at the office of Mr. Edward Watkin, Euston station, London, on or before Wednesday, August 18th.

By order of the Directors,

R. CREED, Secretary.

Euston station, London, August 4th, 1847.

THE CONDUCTOR WHO SPOKE CHINESE

When Woo Pak Wing, of Hong Kong, on a visit to London, asked the bus conductor on the No. 47 bus the best way to Waterloo Station from Rotherhithe, he was pleasantly surprised to be given an answer in Chinese.

Mr. Woo Pak Wing wrote to London Transport when he got back to Hong Kong to thank the conductor "for his politeness and assistance." He said: "I shall always remember our very pleasant English-Chinese talk which helped me to catch a very important railway engine to Southampton."

London Transport supplies this footnote to the incident:—

Thirty-year-old Mr. G. E. Brown, the Chinese-speaking conductor on Route 47, who lives at Brownhill Road, Catford, learned his Chinese while he was a prisoner-of-war in Japan for the greater part of the war.

TURN-ROUND OF WAGONS

Mr. Barnes (Minister of Transport): Reduction of turn-round depends on two factors, reduced time in transit, and quicker loading and unloading at terminal points. The railway companies are paying close attention to both, but, in the case of delays at terminals, require the active co-operation of employers and workpeople. Instructions have been issued to all Government Departments, and the active resistance [our italics] of the Regional Board, the National Production Advisory Council for Industry, and the National Coal Board has been enlisted.—"Hansard," July 28.

AS OTHERS SAW THEM

The Board of the Great Central was very different from that of the South Western or the Midland and South Western Junction. It was commonplace, not to say dull. Viscount Cross, who had been Secretary of State for India, thought he knew something about finance. When any subject was under discussion he murmured, apparently in his sleep, "Where is the money to come from?" Echo answered "Where?" His long whiskers and picturesque appearance generally was the only diverting object at the Board, apart from the large and ugly boots of the Vice-Chairman, which were always getting into one's way. He was not popular with the Marylebone platform staff, having in a fit of generosity given a porter a penny for carrying his bag.—From "Memoirs," by Sir Sam Fay.

LIGHT LUGGAGE

Holiday-makers who "travel light" had an exemplar in Lord Avebury, founder of Bank Holidays, whose luggage on many journeyings was generally confined to a capacious Gladstone bag. The contents of that bag, however, were sometimes curious. One day, having set the bag down for a minute on a seat at a station, he returned to find it had disappeared. He reported the loss to the stationmaster, who said, "I'm afraid you will not recover it, for there are always rogues watching for such an opportunity. What was in it, sir?" "Nothing of great value," replied Avebury. "Only a German treatise on Hitite inscriptions and a bagful of bees." "Oh," said the official, "then in that case you may get it back." Sure enough an innocent-looking old gentleman came hurrying back with the bag, explaining that he had taken it in mistake for his own.—From "The Manchester Guardian."

MACHINE AGE

The L.N.E.R. is to replace all its horse-drawn delivery vehicles with motor vans.

Petrol and oil
May soil
The day,
But oats
And hay
Don't pay
Their way.

Of course
The horse
Must go —
I'm sorry—
It's cheaper
To keep a
Motor lorry.

—From "The Scotsman."

OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

INDIA

S.I.R. Electrification Proposals

A comprehensive scheme of electrification has been proposed by the South Indian Railway. In the first instance, the sections between Tambaran and Chingleput, and between Chingleput and Arkonam, are to be converted. Later on, electrification is proposed from Chingleput to Villupuram. Hydro-electric power would be used as far as possible. The electrification of the Tambaran-Chingleput-Arkonam section is scheduled to be included in the 1948-49 programme of the S.I.R.

The Eastern Punjab Railway

The organisation of the Eastern Punjab Railway, comprising for the present those parts of the existing North Western Railway which fall on the east of the provisional boundary line, is in full swing under the direction of Rai Bahadur P. C. Khanna, formerly Chief Engineer of the North Western Railway, who has been selected by the Railway Board to be Chief Administrative Officer.

The Chief Administrative Officer is assisted by a team of officers who are working at top speed to start the new railway functioning on the day of transfer of power. The staff for the headquarters of the new railway is now being selected from amongst those employees of the North Western Railway who have elected to serve in India (as opposed to Pakistan).

Adjustments are being made also between the staff employed on the west of the boundary line and those in the Eastern Punjab area. The staff to move from the headquarters of the North Western Railway to the Eastern Punjab Railway headquarters in Delhi is estimated at 400.

It is expected that a certain portion of the East Indian Railway and the Great Indian Peninsula Railway eventually will be included in the Eastern Punjab Railway, which is likely to develop into a great central Indian system. The Government of India has denied that there will be any inconvenience to passengers or dislocation of goods and parcels traffic due to the partitioning of the North Western Railway. All existing services, both for passengers and merchandise, will remain unaffected, and will continue to run to existing schedules through the territories of both Dominions. Partition in itself will involve no change in the present system of booking, nor in the existing fares and freight rates.

CEYLON

Pilgrim Traffic

For seven weeks from March 15, unprecedentedly large numbers of pilgrims travelled to Colombo daily from all parts of the island to worship the relics of Sariputhra and Moggallana—the two chief disciples of the Buddha. These relics were discovered in 1851 and taken to England, where they were kept in the Victoria & Albert Museum.

Recently the British Government agreed to return the relics to India, and a representative of the Mahabodhi Society of Ceylon accepted them in London on behalf of the Government of India. The relics reached Ceylon on March 14, on

their way to India. The exhibition began at the Colombo Museum on March 15 and lasted 48 days; over 2,100,000 devotees paid their homage to the relics.

The railway made special arrangements, as far as depleted stock allowed, during the period of the exhibition to convey the pilgrims to Colombo and back, and earned about half a million rupees.

SOUTH AFRICA

Competition from Private Cars

The abolition of petrol rationing and the arrival of new motorcars in the Union have had already an effect on long-distance railway passenger traffic. In his Budget speech early this year, the Minister of Transport expressed confidence that new motor vehicles would not offer much competition to the railways, but in the report of the Railways & Harbours Board for the year ended December, 1946, it is shown that long-distance passenger journeys fell by 1,604,000 as compared with 1945. Suburban journeys for the year increased by more than 11,000,000. Passenger earnings during the year fell by £829,687 to about £14,000,000, but goods earnings rose by £5,558,271 to nearly £34,000,000. There was also an improvement in coal and livestock traffic.

During the year, 18,281 new motor vehicles were railed inland from the ports, of which 16,000 were despatched from Port Elizabeth. By the end of the year the transport of this traffic had become an important phase of the administration's activities and absorbed a large number of drop-sided wagons. The transport of petrol in bulk from the ports rose rapidly with the end of petrol rationing, and by the end of the year more than 200,000,000 gal. had been carried. This represented an increase of 51,000,000 gal. over the previous year. In order to ensure regular supplies at all inland centres, it was necessary to organise an intensive control over the working of tank wagons, and special fast trains had to be arranged to convey loaded and empty tank wagons between Johannesburg and Lourenço Marques.

Road and Air Services

There was an expansion of road motor services in 1946, when 74 new services, with a route-mileage of 2,561, were introduced. Notwithstanding the increases in all classes of traffic, however, there was a loss on working of £605,459, as compared with £363,636 in the previous year. This is attributed to repairs to vehicles, owing to the inability to buy new equipment. Much of the traffic carried, too, was low-rated, and many of the services introduced were for the purpose of opening up and developing new areas.

The administration's aircraft flew more than 34,000,000 passenger-miles during the year, and 69,065 passengers were carried without casualty. Intensive air services are operating in the Union; work is in hand for the construction and improvement of airports.

Financial Results

The total revenue earned in respect of railways, harbours, steamships, airways and aerodromes during 1946 reached the record figure of £71,807,039, which is an

increase of more than £8,000,000 over 1945. Working expenditure rose to £71,700,000, mainly on account of increased cost-of-living allowances, higher salary and wage scales, and increased cost of materials. After providing for ordinary appropriations of £620,082 from revenue, the accounts for the year closed with a deficit of £525,246.

UNITED STATES

The "Grand Canyon" Accelerated

As from June 8 the new "Grand Canyon" diesel streamline train of the Atchafalaya, Topeka & Santa Fe has been accelerated to provide a schedule of 48½ hr. from Chicago to Los Angeles. The train leaves Chicago daily at 12.15 p.m., and reaches Los Angeles at 11 a.m. on the third day. Through carriages from Chicago arrive in San Francisco at 5.25 p.m. on the third day. The return train reaches Chicago at 3.30 p.m., in time for eastern connections, and makes the journey from Los Angeles in 48 hr.

Northbound "Twin Cities" Speed-Up

A cut of 15 min. was made on June 29 in the running time of the C. & N.W. "Twin Cities 400" from Chicago to St. Paul and Minneapolis. The journey is made in 6 hr. 15 min. to St. Paul, and 6 hr. 45 min. to Minneapolis. No change has been made in the southbound schedule. The new timing for the 419 miles to Minneapolis represents an average speed of 62.1 m.p.h., as compared with 59.9 m.p.h. previously.

SWITZERLAND

Gotthard Tunnel Signalling

Even before the war, the traffic over the Gotthard line had necessitated block sections in the 10-mile length of the double-track Gotthard Tunnel. Since fully-automatic signalling was considered too expensive at the time, the solution adopted in 1938 was to have a mid-tunnel block post controlled remotely from the signal box at Göschenen, at the northern end of the tunnel. The tunnel signals were connected with Göschenen by a 50-line cable.

Further expansion of traffic during and after the war has made it increasingly difficult to maintain the tracks and overhead wires during intervals between trains, so that frequent night possessions and single-line working have been required. In order to avoid single-line working over the whole section, crossovers were installed in mid-tunnel.

The mid-tunnel signalling, though still controlled remotely from Göschenen, now provides home and starting signals for both directions. The starters are over half a mile from the crossovers, so that between crossover and signal there is standing room for a complete train, enabling a train to vacate a single-line section without having to wait until the preceding train has cleared the tunnel. The starting signals return automatically to "off" when the tunnel section ahead has been cleared. Home signals are controlled by a king lever, at Göschenen, which permits automatic operation during normal double-line working.

Single-line working in the southern half of the tunnel depends on the consent of the signalman at Airolo, by means of electric interlocking with Göschenen. Provision has been made, also, for emergency operation of the mid-tunnel points and signals from a small signal box on the spot.

Doubling the Gotthard Line

Opened as a single line between Immensee and Chiasso in 1882, the Gotthard Railway has been doubled gradually. The last remaining important single-track section, between Brunnen and Sisikon, is now being completed

THE Gotthard Railway was completed throughout as a single line between Immensee and Chiasso in 1882. Although the international agreements concluded in 1869 stipulated that the line was to be double track, the serious financial difficulties which beset the company in the 70s prevented it from meeting this obligation, although the main Gotthard Tunnel itself and the spiral tunnels on the approaches were built to take double track. Elsewhere, however, single-line tunnels were built, presenting a considerable obstacle to doubling in later years. The line through the great tunnel was doubled in 1883, the year after the opening, and the success of the railway was such that the conversion of other sections soon could be taken in hand.

The process was continued at varying intervals, as opportunity offered, and is not yet complete, although work on the most important remaining piece of single track, between Brunnen and Sisikon, is proceeding rapidly and is expected to be completed by May, 1948. The following table gives the dates of doubling from Immensee onwards:—

Immensee—Brunnen	...	1904
Brunnen—Sisikon	...	in progress
Sisikon—Flüelen	...	1943
Flüelen—Erstfeld	...	1896
Erstfeld—Göschenen	...	1892/3
Göschenen—Airolo (great tunnel)	...	1883
Airolo—Faudo	...	1890
Faudo—Biasca	...	1891/2
Biasca—Bellinzona	...	1896
Bellinzona—Giubiasco	...	1883
Giubiasco—Al Sasso	...	1922
Al Sasso—Rivera	...	1934
Rivera—Taverne	...	1946
Taverne—Lugano	...	1942
Lugano—Melide	...	1915
Melide—Maroggia	...	still single
Maroggia—Chiasso	...	1912/13

The distance from Melide to Maroggia is only 3 km. (1.86 miles), but the conversion of this short section involves widening the dam across the Lake of Lugano and certain other works.

Most of the Swiss lines were built originally as single track, and doubling proceeded relatively slowly, so that when the five principal railway systems were nationalised in the early years of this century, only 19 per cent. of the routes had double line. About 250 million francs had been spent by the Federal Railways in doubling 365 miles up to 1943, in which year, as part of a ten-year plan to relieve unemployment, a further sum of 246 millions was allocated, principally to the abolition of the single-line sections remaining here and there on the main routes and then other sections, totalling in all 249 miles.

The Gotthard Traffic

The traffic over the old Gotthard Pass road, widened from the original pathway early last century, amounted to about 80,000 passengers a year, in the ten years 1870-1880. In the first full year's working of the railway (1883) 250,000 were conveyed; in 1908 (the last year of company operation) 750,000; and in 1944 2,000,000. The average speed of the post coaches was 5½ m.p.h. and of the first steam passenger trains 17 m.p.h. This was increased on electrification to 40 m.p.h., and later, with the improved and very powerful locomotives, to 50 m.p.h. The journey time from Lucerne to Chiasso, by boat and road, was 28 hr. The railway

reduced this to 7 hr. 25 min. In 1913 the time was 4 hr. 46 min. and in 1946 3 hr. 37 min. In 1882 there was a train about every 65 min.; there is now one about every 20 min.

Doubling Between Brunnen and Flüelen

The single-line section between Brunnen and Flüelen, 7½ miles, fed from the north by the three lines from Lucerne, Zug (Zurich), and Rotkreuz, formed a particularly serious obstacle to the working of the traffic. In 1941 the average number of trains daily was 98, and the peak figure for the holiday months often exceeded 120. To allow for the 136 train paths covered by the working timetable, 89 crossings had to be arranged for at Brunnen, Sisikon, and Flüelen stations. The delays unavoidable in operating the international services were frequently greatly aggravated, and this put the Gotthard route at a disadvantage compared with its competitors, such as the Mont Cenis. Trains from Basle and Zurich had to be combined at Arth-Goldau and divided on the return journey, as separate paths could not be found for them.

Civil Engineering Works

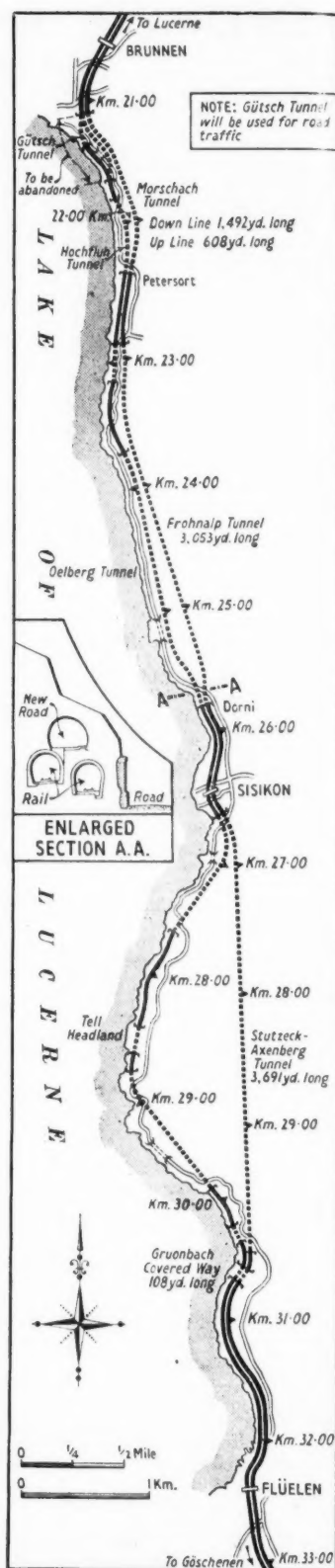
Proposals were made on more than one occasion to relieve the situation by building a line on the western side of the Lake of Lucerne through Stans and Beckenried to join the Gotthard line at Altdorf. They came to nothing, and it was acknowledged that such a line would not in fact eliminate the need for doubling the older route. In 1934-1937 plans for the Brunnen-Flüelen doubling were prepared, and the work was estimated to cost 23 million francs.

A special engineering section was set up in 1938, and in April, 1939, the Federal authorities agreed to provide a subsidy of 8 million francs to the Federal Railways management towards the cost of the work. It was originally intended to double the line along the lake shore, to preserve the tourist attractions of the route, but for various reasons (some connected with defence measures) it was decided finally to run the new down (south-bound) track on a different alignment.

Sisikon-Flüelen Section

Work between Sisikon and Flüelen was begun in March, 1940, at an estimated cost (which was not exceeded) of fr. 10,070,000, and the double-line service began on March 1, 1943. The new line leaves the old just south of Sisikon Station and passes through the Stutzeck-Axenbergtunnel, 3,691 yd. long and straight nearly throughout, cutting off the Tell headland, and rejoining the old (now the up) line just north of the Gruonbach covered way, which, of course, has been duplicated. The line runs thence in the open to Flüelen Station. There are thus only two tunnels on the down line, against five on the up line. The new track is the shorter by 541 yd. Four bridges had to be rebuilt. At Sisikon and Flüelen, electric power signalling has been installed, with colour-light signals, motor-operated points, level-crossing barriers, and double-line lock-and-block. This work was completed at the end of 1943. Flüelen Station build-

(Continued on page 161)



Brunnen-Flüelen section showing doubling and realignment works

Partition of the North Western Railway of India

An outline of the policy now being adopted for the division of the system into two new railways, the new N.W.R. (5,200 route-miles) and Eastern Punjab Railway (1,770 miles), to suit the provisional India-Pakistan frontier

By A. G. Hall, C.I.E., M.B.E.,

General Manager, North Western Railway (India)

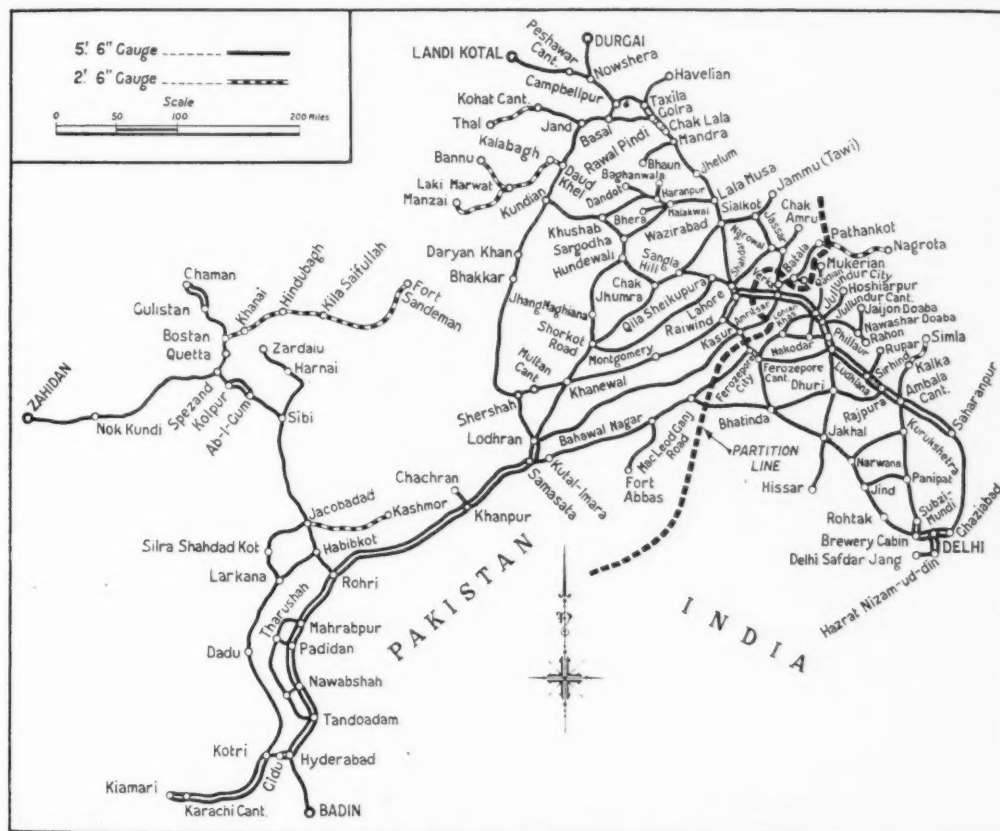
THE simultaneous Government announcements on June 3, 1947, in London and New Delhi, of the decision to partition India into two new Dominions, Pakistan and Hindustan (later designated "India"), also called for the partition of the Punjab on the basis of majority of population, Muslim or Hindu, including Sikh. So that each of these Dominions should control the railways within its borders, this necessitated the division of the North Western system.

The N.W.R. administration received on June 21 the first Government directive on this subject, giving the terms of reference

way"—later to be combined with parts of other railways into a more sizeable unit—would be operated, after separation, as a self-contained railway, having its own Chief Administrative Officer of suitable seniority, and with a headquarters organisation based on the same administrative system as prevailed on the undivided N.W.R. The Eastern Punjab Railway would then have a route-mileage of approximately 1,770, and would consist of two divisions, the existing Delhi Division and an adjusted Ferozepur Division. The headquarters of the railway would be situated at Delhi.

round of engines at, or close to, the points at which the frontier intersects the railway, and it was obviously impossible to provide such facilities in the short space of one-and-a-half months. Arrangements were proposed, therefore, and were quickly accepted, for interchange to be effected at the nearest convenient station, running powers being accorded to the Dominion concerned to pass its traffic over the territory of the other Dominion up to the interchange point selected.

It may be mentioned here that most of the wagons owned by individual railways are pooled for general service all over India, the holding of each system being accounted for at inter-railway interchange points by the Director of Wagon Interchange, working under the direction of the Indian Railway Conference Association, a semi-official and neutral body supported by all participating railways. Hire charges are raised against railways having stock in excess of their authorised holding. Mechanical examination of all inter-



The North Western Railway of India, showing the provisional partition between the Dominions of India and Pakistan

on which a full partition report was to be based; it also required that separation should be as complete as possible by August 15, the date of transfer of power. The more important requirements of the directive will be found embodied in an editorial article on page 143 in this issue.

Provisional Boundary

The provisional boundary line—shown on the map—and the terms of the directive made it clear that the southern section of the present North Western system, situated in the new Dominion of India and now designated the "Eastern Punjab Rail-

The portion of the N.W.R. remaining in Pakistan would have 5,200 route-miles and five divisions, Karachi, Quetta, and Rawalpindi being unchanged, but Multan and Ferozepur Divisions adjusted. It was decided that the headquarters should remain at Lahore, and that the railway would continue to be known as the North Western Railway, a matter which will give much satisfaction to the many officers who have spent their lives in the service of this great Indian system.

An examination of the notional boundary showed that no facilities existed for the interchange of traffic or the turn-

changed stock is undertaken by neutral train examiners working under the same organisation; they record all defects and deficiencies in stock interchanged, and bill for repairs and penalties in accordance with conference regulations.

Continuation of Wagon Pool Agreed

As it was laid down that both Dominions would agree to continue the policy of general pooling, and to accept the decisions of the conference, consideration had to be given to the facilities to be provided urgently at the provisional interchange points, where engines would have

to be detached and turned, wagons examined and passed for interchange, seals checked, and, possibly, at a later date, customs examination introduced. At Lahore, the interchange point for main-line traffic and the terminal of the running powers of the Eastern Punjab Railway over the North Western Railway, it has been found necessary to carry out certain alterations in the yard and to extend the wagon repair facilities.

Amritsar is the interchange point for branch-line traffic, and is the terminal of the running powers of the North Western Railway over the Eastern Punjab Railway branch lines. At both these stations there are adequate engine-shed facilities, so that the problem was mainly one of alteration and adaptation.

Near Ferozepur and McLeod Ganj Road stations, the problem was quite different. In each case yards have to be constructed in which neutral examination, repairs, and seal checking can be effected, and, in addition, at MacLeod Ganj Road station provision has to be made for the turn-round and running repairs of locomotives.

The construction of quarters for the greatly augmented staff is impossible within the short period available, but temporary arrangements are in hand to provide tentage and sleeper-hut accommodation, a poor substitute for the solid quarters which are so essential for protection against the midsummer sun in India, with temperatures rising to 120° in the shade.

Distribution of Engines and Stock

The division of assets has presented a difficult problem and has entailed an enormous amount of statistical work compressed into a remarkably short space of time, hundreds of clerks being employed in compiling the various statements. For the division of goods wagons, several methods were employed and all gave very similar results. For the last two years, figures have been maintained showing the stock-holding of each of the seven divisions of the railway, whether stationary or on the run. It was, therefore, possible to strike an average of the holdings for this period and, with adjustments—based on periodical census figures—for the altered Lahore and Ferozepur Divisions, to arrive at a fair distribution between the two future railways. Other figures were compiled, based on the population of the two areas, the loading and ton-mileage, but all gave remarkably close results.

Any attempt to base ownership on the requirements for the traffic originated and overall turn-round was found to be impracticable. The final percentages accepted by all concerned were 63 per cent. for the North Western Railway and 37 per cent. for the Eastern Punjab Railway; the apparent discrepancy compared with the route-mileage is due to the heavy transit traffic over the latter railway.

The division of locomotives has been a somewhat simpler problem. For passenger and mixed trains, where the engine links lie wholly within one railway, the allotment has been made accordingly, but where they lie in both Dominions, division has been made according to the mileage on each side of the frontier. Goods locomotives have been apportioned on the basis of the mileage run, and this figure, in turn, has been obtained by consideration of the average running time, plus outstation turn-round time, plus outstation shed time, plus home shed time. To the number so obtained has been added a proportion of spare locomotives for reserve.

Shunting locomotives have been allocated according to the number of shunting points on each railway, with an allowance

for the hours of shunting and other incidental time added.

The division of coaching stock has been based on similar principles; where a link lies entirely within one railway, the stock involved has been allotted to that railway; but where the link is shared, the division has been made on the basis of proportionate mileage.

In all cases, certain special rolling stock, such as diesel locomotives, railcars, reserved saloons, oil tank-wagons, and water tank-wagons have been allotted on the basis of requirements or point of origin of the traffic; the financial aspect of such adjustments is unimportant, as each Dominion will be debited with what it receives.

The division of the North Western Railway between Lahore and Amritsar, two of its largest and most heavily-worked stations, at a point so close to the former station, has resulted in a complete alteration in the engine links of the Delhi-Saharanpur-Lahore main line. The result has been that all such links, as well as those of the Delhi-Bhatinda-Lahore main-line section, have had to be recast entirely. A large number of engines will have to be transferred from the Lahore shed to other sheds on the Eastern Punjab Railway, which are at present only partly equipped to deal with them. In the division of locomotives, due attention has been given to the necessity for keeping the number of types of engines to a minimum on each railway.

All proposals submitted by the North Western Railway have, generally, been accepted with only minor alterations by the Partition Committees in Delhi. The basis of allocation being fixed, the division has been worked out by age groups so as to ensure a fair distribution of serviceable assets to each Dominion. Finally, rolling stock has been allocated by individual numbers so that the marking for the Eastern Punjab Railway could be taken in hand.

Workshop and Stores Problems

Owing to the obvious impracticability of providing workshop capacity for the periodic overhaul of locomotives and rolling stock of the Eastern Punjab Railway, even for some considerable time after partition or, alternatively, obtaining capacity from other railways, the workshops of which are already fully occupied, an agreement between the two Dominions will be concluded, by which the locomotives and rolling stock of the Eastern Punjab Railway will be overhauled in the Moghalpura workshops (Lahore) in Pakistan. Such overhauls and also nominated repairs beyond the capacity of running sheds and carriage and wagon depots, will be carried out by the North Western Railway on a flat rate for periodic overhauls, and on a cost basis for special repairs, subject to adjustment when the previous year's rates have been verified in accounts.

The General Stores depot of the present North Western Railway is situated in Lahore, and, though it was the desire of both Dominions that the greatest possible physical separation of stores should take place before partition, it has not been found possible to effect more than a book partition. Since the central workshops will continue, for the present, to undertake heavy repairs of locomotives and rolling stock for both Dominions, the stores and duplicates required will be treated as workshop stores, requiring no division. "General" stores will be separated in the books on the basis of the average consumption over a period of time, while future receipts will be allocated in the

same manner until such time as the Eastern Punjab Railway has organised its own stores depot and will be in a position to arrange its own purchase and distribution.

At no time will either railway be able to draw stores in excess of the book balance allotted to it, and observers will be posted to see that these rules are enforced meticulously. Owing to the considerable delay that, under present conditions, takes place between order and supply, it will be necessary to make an equitable distribution of stores for some time to come, until the procurement organisation of the Eastern Punjab Railway is effective.

Other assets that require division are the stocks of the Bridge Workshops at Jhelum, divided on the basis of lineal footage of girders in the line; the stores and equipment of the Signal Shops in Lahore, on the basis of installation; the Tubewell and Permanent Way Stores, the latter on the basis of renewal programmes; and the Sleeper Creosoting Depot at Dhillwan. The equipment and machines of the ticket-printing press and the clothing factory also are to be divided on the basis of requirements.

Division of Fixed Assets and Future Accounting

Fixed assets will be divided on the principle of their geographical location, and the final division of capital will be made at a high level by the Partition Committee at Delhi, on which the major communities are represented equally. The revenue accounts will operate for the undivided railway until August 15, after which all expenditure and receipts will be booked in separate accounts—in fact, many accounts are separated already in order to be prepared in advance for the change-over, though the actual booking to two accounts will not be carried out until the date of partition.

The earnings of the several Indian railways are apportioned at present in the Central Clearing Accounts office, Delhi; but, with separation, a new traffic accounts office will be opened in Lahore, staff being transferred from the central office for the purpose. Temporarily, the division of earnings between the two Dominions will be on a proportional mileage basis, the junction being assumed at the actual boundary and not at the provisional interchange point.

Wholesale Transfer of Staff

Apart from the considerable difficulties involved in the partition of the North Western Railway, with the inevitable slow-down of traffic that must result temporarily therefrom, there is the added complication of the transfer of staff between Dominions. Immediately after the orders for partition, instructions were received that a declaration was to be given by each of the 132,000 employees of the undivided North Western Railway, stating in which Dominion he wished to serve, either finally, or with the option of a change in declaration within six months of partition.

The forms were printed and issued within two days, advantage being taken of air services to supply the outlying divisions. The declaration forms, duly completed, had to be returned within a week and summarised, the results being forwarded to the Railway Board, so that an all-India appreciation of personnel exchanges could be visualised. Approximately 25,000 Hindu and Sikh staff in the Pakistan area of the N.W.R. have expressed their desire to transfer to the Dominion.

(Continued on page 153)

Rebuilt 4-8-4 Compound Locomotive for French National Railways

Kylchap triple blastpipe incorporated for first time in Mountain type rebuilt for higher power

THE S.N.C.F. recently put into service a compound 3-cylinder locomotive representing an advance in power on the Mountain type used on the former Paris, Lyons & Mediterranean Railway. This locomotive is a complete rebuild of a 3-cylinder Mountain-type locomotive which had been built in 1932 for hauling boat trains of 590 tons on the State Railways.

The rebuilding was carried out by M. André Chapelon, who modified the Pacific locomotives of the former P.O.-Midi Railways. In his Pacific conversions, M. Chapelon improved the efficiency of the low-pressure cylinders, and obtained better steaming by adopting the Kylchap double-exhaust system. The power of the loco-

capacity of general contractor. The boiler was modified at the Ateliers de Sotteville, and new cylinders were cast at the Fonderie de Saint-Pierre-des-Corps. The underframe was greatly strengthened to permit full development of power in the rebuilt engine. The rear carrying axle was replaced by a twin-axle truck, and the front bogie also was renewed. In replacing the exhaust by a triple Kylchap blastpipe, the first application of the triple system was made to a locomotive. Trial runs were begun in 1946.

The rebuilt locomotive has four coupled axles, each carrying a load of 20 tons 14 cwt.; the driving-wheel diameter is 6 ft. 4 in. The bogie axleloads are each 17 tons 3 cwt., and those of the two rear

to Saint-Germain-des-Fosses via Saint-Etienne, with gradients of 6 to 18 in 1,000; and on the line from Paris to Dijon, where the section from Laumes to Blaisy-Bas is one of the most severe on the system. Some results of trial runs are as follow:—

Train: Bordeaux—Geneva; July 18, 1946; 15 coaches, 611 tons 16 cwt. St. Germain-des-Fosses—Lyons
Time allowed: 3 hr. 27 min.
Time gained: 34 min. 35 sec.
Maximum power: 4,200 h.p. at 90 km.p.h. (56 m.p.h.) on a gradient of 11 in 1,000

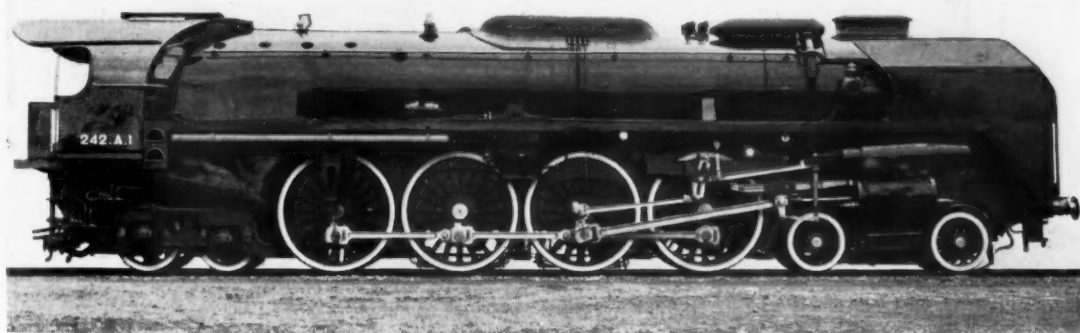
Train 1042; July 19, 1946: Lyons—St.-Germain-des-Fosses

Time allowed: 3 hr. 52 min.
Time gained: 1 hr. 8 min.
Maximum power: 4,081 h.p. at 72 km.p.h. (45 m.p.h.) on a gradient of 13.75 in 1,000

Train 4: July 21, 1946: Lyons—Paris. From Lyons to Dijon, 13 coaches, 625 tons 12 cwt.; from Dijon to Laroche, 14 coaches, 682 tons 15 cwt.; from Laroche to Paris, 13 coaches, 629 tons 10 cwt.

Time allowed: 7 hr. 12 min.
Time gained: 1 hr. 21 min.
Maximum power: 3,931 h.p. at 99 km.p.h. (61.5 m.p.h.)

Acceleration tests gave the following results: Starting from Montrond towards Lyons, a speed of 100 km.p.h. (62 m.p.h.)



Rebuilt three-cylinder 4-8-4 compound locomotive, French National Railways

motives was raised from 2,000 to 3,700 i.h.p. Improvements in the steam passages also helped very largely to augment the power.

Working on similar lines with the Mountain locomotive, which needed repairs to damaged cylinder and unsatisfactory steam distribution, M. Chapelon decided to convert it into a compound locomotive, retaining three cylinders. The work was carried out by the Compagnie des Forges et Aciéries de la Marine et d'Homécourt de Saint Chamond, in the

axles 14 tons and 14 tons 15 cwt. The total weight on axles thus is 145 tons 17 cwt. Overall length is 58 ft. 3 in. The original American mechanical stoker has been replaced by one built by the Société Stein et Roubaix, a type already in use on some of the new S.N.C.F. engines. This latest stoker avoids the former drawback of decreasing the grate area by 6½ sq. ft.

Early trial runs confirmed the results expected. The runs were made on difficult gradients, such as the one from Lyons

was attained after 3 km. (1.86 miles in 3 min. 10 sec.). Weight of train, 603 tons 18 cwt.

On a gradient of 14 in 1,000 (from Rives-de-Gier to St. Chamond), 5.9 miles were covered in 9 min. 50 sec.; the speed attained at the end of this distance was 66 km.p.h. (41 m.p.h.).

As a result of these and many other tests, the S.N.C.F. claims that it now has a prototype locomotive definitely superior to the most powerful hitherto put in service.

Partition of the North Western Railway of India

(Concluded from page 152)

ion of India, and some 5,000 Muslim staff in the Eastern Punjab Railway area wish to move to Pakistan. It will not, of course, be possible to ensure that the staff who wish to move across will all be accommodated in the area of the present North Western Railway, and transfers over large distances will, in many cases, be necessary.

Although it will be quite impossible for these inter-Dominion transfers to be effected by August 15, a start is being made immediately, special trains being provided between the larger centres for the accommodation of complete families, and their personal belongings. As adequate reliefs will not be available during these intensive moves, leave will have to be cancelled and the hours of work ex-

tended under "emergency" conditions. Quarters vacated in each area will be reserved for those arriving, and reception committees are being organised to assist the staff in their new surroundings.

Apart from the exchange of railway staff, similar arrangements will have to be made shortly for the exchange of the personnel of all the Government offices in the Punjab, Sind, Baluchistan, and North West Frontier Provinces, who desire to change their Dominion of residence, and those of other Central Government Departments; and, at the same time, there are sure to be large movements of the civil population by ordinary train services.

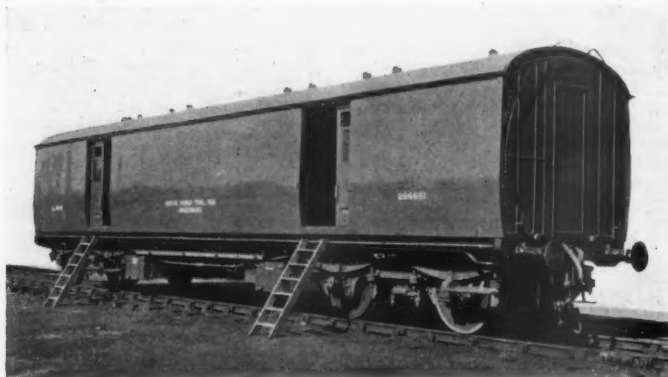
The new headquarters of the Eastern Punjab Railway has to transfer to Delhi before partition; the newly-formed Pakistan Government will move shortly to its future headquarters at Karachi. The redistributed armies, also, have to take up their new

positions before August 15, and their personnel will exchange, according to individual option, after that date. As all these moves, involving many hundreds of thousands of individuals, presumably will have to be completed within the space of a few months, some idea can be formed of the magnitude of the task, rendered more difficult by the fact that a similar exchange of officers, senior and junior, is taking place already and will be nearly complete at the date of separation.

It is, perhaps, the first time in history that the division of a major railway has been attempted in such a short time, and with so little preparation, and the incidental transfer of a large proportion of the staff within a few months of division must be unique. The degree of success that attends this major operation will most certainly be an index of the determination and capacity of all concerned.

Standard Tool Vans for Breakdown Trains

L.M.S.R. vehicles providing maximum accessibility of equipment



IN conjunction with the provision, authorised in 1941, of ten new 30-ton steam cranes, the L.M.S.R. has taken the opportunity of standardising a modern design of tool van, to form part of each breakdown train. These standard vehicles

are being provided in replacement of obsolescent tool vans of various designs as they are condemned; 29 vans of the new design are in service already.

The basis of the standard tool van is a double-bogie vehicle, 50-ft. long, in the

conversion of which the interior layout has been so arranged as to provide maximum economy of space combined with quick access to equipment and tools. Thus, the hand-brake and heating stove are positioned at one end of the van, and all equipment is carried round the side of the van on racks and shadow-boards, thus leaving the centre portion of the vehicle free for the speedy handling of tools, ropes, and other equipment. Similarly, ramps are kept in specially designed boxes underneath the van, whilst ladders are carried in the roof for ease of access.

Other features of the design include sliding doors at each end of the van, with step-ladders for ready handling of equipment between van and rail level; lighting by Tilley lamps suspended from the roof; fitter's bench and vice; and a comprehensive standard equipment among which are the following items:—

- Oxy-acetylene cutting plant
- 4 double-acting 12-ton oil jacks
- 4 double-acting 20-ton oil jacks
- 4 Barrett 15-ton quick-acting jacks
- 4 windlass type jacks
- 4 Eversure 10-ton jacks
- 12 Tilley "A.L.9" lamps
- 2 Tilley "F.L.6" floodlights, with stands
- 2 Tilley "C.L.72" hanging lamps

All lifting tackle is comprised of wire ropes and slings.

Memorial to Swiss Electrical Engineer

Commemorating the pioneer work for Swiss electrification of Dr. Emil Huber-Stockar

ON July 5, at Flüelen Station, on the Gotthard line of the Swiss Federal Railways, a memorial erected jointly by the Swiss Association of Electrical Engineers and the Management of the Federal Railways was unveiled in honour of the late Dr. Emil Huber-Stockar, the pioneer in the work of main-line electrification in Switzerland.

Speeches were delivered at the ceremony by Dr. P. Joye, President, and Herr Winiger, Vice-President, for the Association; Dr. M. Paschoud, General Director (Engineering and Operating), for the Federal Railways; and Dr. Max Huber, of the International Red Cross, for the Huber-Stockar family.

The care of the memorial, which stands between the new station buildings and the steamer landing stage on the Lake of the Four Cantons, devolves on the railway management.

The inscriptions on the memorial recall how Dr. Huber-Stockar, on his own initiative, laid the foundations in 1902-1909, on the Seebach-Wettingen line (see *The Railway Gazette* for November 3, 1942, page 466) for the subsequent development of electric traction on the Federal and other lines, and how that work, by rendering the railways independent of coal supplies, has contributed to assure the freedom of the country. Among the men of activity and foresight who combined to further that enterprise, Dr. Huber-Stockar stands in the foremost rank.

Descended from an old Zurich family, Dr. Huber-Stockar was born at Riesbach on July 15, 1865. After qualifying for a degree in 1888 he joined the Oerlikon concern and eventually became its General Manager.

In 1912, the Swiss Federal Railways appointed him chief of the newly established department for carrying out the electrification of the system, the work of which was much delayed by the 1914-1918

war. The experience of that war, however, confirmed the authorities in their belief in the absolute necessity of making the change, since continuously pushed forward, so that by 1950 the entire Federal system will be electrically operated.

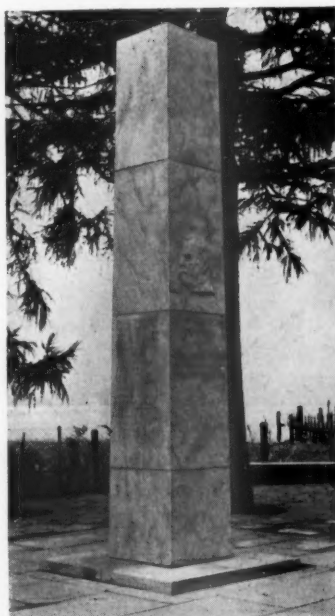
During the recent war, the fact that so large a mileage was converted already undoubtedly saved Switzerland from a complete transport breakdown, and it is now

productive of an annual saving estimated at fr. 100 to 120 million.

Dr. Huber-Stockar, who was widely known and respected in many countries, where he often took part in conferences and in the work of the International Electrotechnical Commission, and who was active in other branches of engineering, died suddenly on May 9, 1939.

HOSE CONNECTIONS FOR WELDING AND CUTTING APPLIANCES.—British Standard No. 1389:1947 has been prepared to fix the size of hose connections used in welding and cutting to facilitate a change in the size of a cutting or welding blowpipe, or an interchange between the two, with a minimum change of hose. Copies of the specification may be obtained from the Sales Department, British Standards Institution, 24, Victoria Street, London, S.W.1, price 2s. each.

GERMAN AND JAPANESE INDUSTRIAL REPORTS.—The release of reports on German and Japanese industry is being continued, and the total numbers now available are 2,200 German, and 97 Japanese, reports. The Board of Trade states that it is important that industrialists should realise that, although no invention made in Germany or Japan during the period between September 3, 1938, and December 31, 1945, can become the subject of a valid British patent, some of the information gathered in Germany or Japan may be covered by valid patents or patent applications in the United Kingdom; to avoid infringing patent rights, firms interested in exploiting any particular item are advised, therefore, to investigate the patents position in the United Kingdom before going into production. Similar investigations are desirable before exports are made to any particular country abroad. The reports may be purchased from H.M. Stationery Office, at York House, Kingsway, London, W.C.2, or at Edinburgh, Manchester, Cardiff, Belfast, or Bristol. The British Intelligence Objectives Sub-Committee, Information Section, 37, Bryanston Square, London, W.1, also has at its disposal considerable information.



The Huber-Stockar memorial by the lakeside at Flüelen

layout
maxi-
with
Thus,
e posi-
ed all
of the
thus
vehicle
tools,
ularly,
boxes
rs are
ess.
clude
t, with
equip-
ghting
e roof;
rehen-
ch are

f wire

imated

widely
untries,
erences
l Elec-
o was
eering.

G AND
andard
to fix
weld-
nge in
wpipe,
o, with
ies of
from
rds In-
ondon,

AL RE-
erman
tinued.
le are
eports.
is im-
realise
n Ger-
etween
er 31,
a valid
mation
ay be
appli-
avoid
sted in
dvised.
s posi-
going
ons are
to any
reports
tionery
ondon.
r. Car-
Intel-
e. In-
square,
al con-

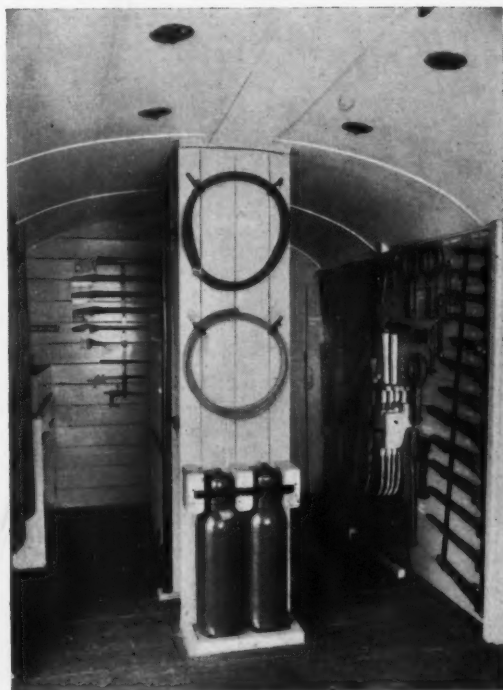
Standard Tool Vans for Breakdown Trains



Interior of new L.M.S.R. vehicle, showing method of stowing tools to provide adequate space for unobstructed handling



Fitter's bench and tool shadow-boards



Oxy-acetylene cylinders and hoses

St. Pancras Station Track Renewals, L.M.S.R.

(See Editorial Note on page 142)



General view from the roof of St. Pancras Station, L.M.S.R., showing track relaying work in progress on Sunday, July 27. The lines diverging to the left hand of the picture are the approach roads to Somers Town goods station

August 8, 1947

THE RAILWAY GAZETTE

157



Prefabricated crossing work being lowered by crane into the track at the approach to St. Pancras Station, L.M.S.R., on Sunday, July 27. The trackwork was built and timbered by Taylor Bros. (Sandiacre) Ltd., and the whole of the work was laid out and marked for re-assembly in that company's yard

St. Pancras Station Track Renewals, L.M.S.R.



Near view of work in progress outside St. Pancras Station, L.M.S.R., on Sunday, July 27. This was stage six of the important nine-stage programme for renewing the whole of the permanent way for 240 yd., involving forty sets of points and fifty crossings. (See pages 156 and 157)

the
Ne
Gr
vat
to
Tr
M
H.
ha
In
Ta
ag
ter
the
wa
an
cap
the

En
to

Jo
El
Na
cil
Ac

Of
Ac
of
on

M
Nig
Spe
(Re
Tra
Ger

M
cor
for
Ger
and
in
Rai
cler
he

RAILWAY NEWS SECTION

PERSONAL

Mr. A. J. F. Bunning, General Manager, Nigerian Railway, has been appointed Special Commissioner for Railway Rates (Revision). Mr. D. C. Woodward, hitherto Traffic Manager, has been appointed General Manager.

Mr. T. Coulson Thompson, who, as recorded in our July 25 issue, has resigned, for reasons of health, his position as General Manager of the Taltal Railway, and has returned to England, was born in 1889, and joined the North Eastern Railway (England) in 1903 as a junior clerk. After serving in various capacities he was transferred to the relief staff of

Officer remain unaltered. Mr. Winchester recently has had charge of a section of the Accounts Office responsible to the Accountant for general financial and accounting work, including that arising out of Government control; and he will continue to be responsible for that work.

Mr. W. A. Robertson, B.Sc., A.M.I.C.E., District Engineer, Lancaster, L.M.S.R., who, as recorded in our June 27 issue, has been appointed District Engineer, Walsall, was educated in Scotland; he obtained his degree in engineering at Edinburgh University. He entered the service of the L.M.S.R. at Derby in 1923 as a privileged assistant, and spent three years in the office of the Central District Engineer. In 1926

Mr. F. A. Bottomley, Deputy General Manager, succeeds Mr. Wilson as General Manager of those railways, and Mr. J. H. T. Barton, Chief Mechanical Engineer, has been appointed Deputy General Manager.

Mr. John Wilson, O.B.E., has been appointed a Director of United Railways of the Havana & Regla Warehouses Limited.

Mr. Herbert George Snell, Assistant for Train Services to Superintendent of Operation, Southern Railway, who, as recorded in our June 27 issue, has retired, joined the L.S.W.R. in 1896 at Eggesford, Devon. After service there and at Tavistock and



Mr. T. Coulson Thompson

General Manager, Taltal Railway,
1936-47



Mr. W. A. Robertson

Appointed District Engineer, Walsall,
L.M.S.R.



Mr. H. G. Snell

Assistant for Train Services to Superintendent
of Operation, Southern Railway, 1945-47

the District Passenger Manager's Office, Newcastle-on-Tyne. In 1912 he joined the Great Southern Railway of Spain as Private Secretary to the General Manager, to whom he was eventually appointed Traffic Assistant. During the 1914-18 war Mr. Thompson obtained leave to join H.M. Forces, returning to Spain in 1919, having served with the R.F.A. and R.G.A. In 1923 he went to Chile to join the Taltal Railway, as Assistant Traffic Manager. Later he became Welfare Superintendent, and afterwards Chief Clerk to the General Manager. Mr. Thompson was appointed Traffic Manager in 1933, and General Manager in 1936, in which capacity he continued also to carry out the duties of Traffic Manager.

Mr. T. B. Welch, Chief Mechanical Engineer, Nigerian Railway, is proceeding to England shortly on leave.

Mr. Leslie Gamage (Vice-Chairman & Joint Managing Director of the General Electric Co., Ltd. and a member of the National Civil Aviation Consultative Council) has been appointed Chief Business Adviser to the Minister of Civil Aviation.

Mr. W. I. Winchester, of the Accounts Office, L.P.T.B., has been appointed Accounts Officer (General). The position of Accounts Officer (General) is a new one; the duties of the present Accounts

Mr. Robertson was appointed Assistant to the Resident Engineer on the Chevet and Snyderdale widening, and in 1927 became Resident Engineer in charge of the construction of the Welbeck Colliery Branch. Three years later he was appointed Assistant to the Resident Engineer on the Barking and Upminster widening, and in 1932 was made Resident Engineer on various new works on the London, Tilbury & Southend Section. In 1933 Mr. Robertson was appointed Assistant to the District Engineer, Northampton, and in February, 1940, he became Acting District Engineer, South Wales District. He was appointed Acting District Engineer, Derby South District, in August, 1941, in which capacity he remained until promoted District Engineer, Lancaster, in February, 1942.

Rai Bahadur P. C. Khanna, formerly Chief Engineer, North Western Railway, India, has been selected by the Railway Board to be Chief Administrative Officer of the new Eastern Punjab Railway.

ENTRE RIOS AND ARGENTINE NORTH EASTERN RAILWAYS

Mr. John Wilson, O.B.E., M.I.E.E., M.Inst.T., has retired from the General Managership of the Entre Rios Railways and the Argentine North Eastern Railway and returned to London to take up his position on the boards of those companies, to which he was elected in January, 1946.

in the Western Divisional Superintendent's Office, he was sent in 1914 to the Office of the Superintendent of the Line at Waterloo to assist in connection with war duties. He returned to Exeter in 1921 as Chief Trains Clerk, and on the amalgamation in 1923 went to the London West Division in the same capacity, afterwards becoming Chief Clerk to the London West Divisional Superintendent. In connection with the reorganisation in 1930, he was appointed Chief Clerk to the Superintendent of Operation, afterwards becoming an Assistant to that officer; he later was appointed Acting Assistant for Train Services, and, in April, 1945, Assistant for Train Services. Mr. Snell comes of a railway family; his father, six brothers and son have between them completed 350 years' service with the L.S.W.R. and Southern Railway; three brothers and his son are still serving.

COLONIAL RAILWAY APPOINTMENTS

The Secretary of State for the Colonies has approved the following appointments:—

Mr. A. F. Bellman to be Assistant Engineer, Kenya & Uganda Railways & Harbours.

Mr. J. W. Shepley to be Railway Labour & Welfare Officer, Malaya.

Mr. G. D. Hardy to be District Traffic Superintendent, Palestine Railways.

Mr. W. J. Lardner to be Stores Superintendent, Palestine Railways.



Mr. A. C. Bushell

Appointed New Works Assistant to Traffic Manager, Southern Railway

Mr. A. C. Bushell, who, as recorded in our June 27 issue, has been appointed New Works Assistant to the Traffic Manager, Southern Railway, joined the S.E.C.R. as a telegraph messenger at Tonbridge Station in 1906, and was appointed a clerk in 1909. He joined the staff of the Superintendent of the Line at London Bridge in 1911, and served in the Passenger Rolling Stock and Timetable Sections at London Bridge and Waterloo Stations until 1927, when he transferred to the New Works Section, Traffic Manager's Office; he was appointed Deputy Chief of Section (New Works) in March, 1940. Mr. Bushell served in H.M. Forces from 1917-19 with Transportation Stores Unit, B.E.F.

RAILWAY CLEARING HOUSE

Mr. W. J. Amies, Head of Secretarial Department, has been appointed Assistant Secretary, *vice* Mr. T. J. Lynch, recently appointed Secretary.

Mr. W. S. Cutler, Departmental Assistant, has been appointed Head of Secretarial Department.

Mr. William Cecil Collins, A.M.Inst.T., who, as recorded in our June 27 issue, has been appointed Indoor Assistant to the Traffic Manager, Southern Railway, joined the L.B.S.C.R. in the Office of the Superintendent of the Line in 1913. From 1915-19 he saw active service in France, after which he returned to the Superintendent of the Line's Office. From 1923-28 he served in the Chief Operating Superintendent's Office, Southern Railway, and in the London (West) Division, and in 1928 became Assistant Stationmaster, Waterloo. Thereafter Mr. Collins was appointed Assistant Stationmaster, Victoria, in 1929; Stationmaster, Woolwich Arsenal (also Woolwich Dockyard, Plumstead & Charlton), in 1933; Stationmaster, Ashford (Kent), in 1934; and Traffic Assistant to Divisional Marine Manager, Dover, in 1936. In 1940-41 he served as Railway Liaison Officer, Aldershot Command, and from 1941-45 as Railway Liaison Officer, Southern Command and U.S. Southern Base. In 1945-46 he was Acting Assistant to Southern Divisional Superintendent, and in the latter year was appointed Assistant to Traffic Manager (Planning). Mr. Collins was Senior Lecturer on "Signalling



Mr. W. C. Collins

Appointed Indoor Assistant to Traffic Manager, Southern Railway

and Operating" subjects at the company's Training School from 1924-28; Lecturer, L.C.C. Evening Institute, on transportation subjects, 1932-33; and Lecturer, Southampton University, on "Modern Railway Operation," 1945-46. He was recently awarded the Medal of Freedom with Bronze Palm (U.S.A.), and he is a Chevalier of the Order of Maritime Merit (France) and a Chevalier of the Order of the Crown of Roumania.

Mr. C. S. Piper, who, as recorded in our June 27 issue, has been appointed Assistant for Rules & Regulations to the Superintendent of Operation, Southern Railway, was appointed in 1919 to the Rules & New Works Section, Office of the Superintendent of the Line, L.S.W.R., at Waterloo, before which he had been engaged as Personal Clerk to the Western Divisional Superintendent at Exeter. In 1924, after the formation of the Southern Railway, he was appointed to the London West Divisional Superintendent's Office to deal with accidents; after remaining there for about 12 months, he joined the Rules Section in the Office of the Superintendent of Operation, holding successive posts in that office until 1942, when he became Deputy Chief of the Rules Section. During 1944 Mr. Piper was Chairman of the R.C.H. Special Committee for Rules & Regulations.

L.M.S.R. APPOINTMENTS

Mr. C. J. Chaplin, District Engineer, Derby (South), to be District Engineer, Bradford, *vice* Mr. A. G. Banks, retiring.

Mr. G. D. S. Alley, District Engineer, Abergavenny, to be District Engineer, Derby (South).

Mr. J. Cunningham, Assistant to District Engineer, Bangor, to be District Engineer, Abergavenny.

Mr. E. Heaton, Resident Engineer (Concrete Depot), Newton Heath, to be Superintendent (Concrete Depot), Newton Heath.

Mr. S. Stafford, Chief Permanent Way Inspector, Derby (South), to be Chief Permanent Way Inspector, Leeds.

Mr. A. Evans, District Permanent Way Inspector, Sheffield, to be Chief Permanent Way Inspector, Derby (South).

Mr. J. Stretch, Permanent Way Inspec-



Mr. C. S. Piper

Appointed Assistant for Rules & Regulations to Superintendent of Operation, Southern Railway

tor, Kentish Town, to be Chief Permanent Way Inspector, Lancaster.

Mr. C. E. Wilson, Chief Staff Clerk (Goods Section), Office of Chief Commercial Manager & Chief Operating Manager, Watford H.Q., to be Staff Assistant to Chief Commercial Manager & Chief Operating Manager, Watford H.Q.

Mr. H. Forster, Chief Cartage Clerk, District Goods & Passenger Manager's Office, Leicester, to be Goods Agent, Blackpool.

Mr. C. S. Shinton, Goods Agent, Spon Lane, to be Goods Agent, Dudley.

Mr. J. G. Round, Goods Agent, Albion, to be Goods Agent, Oldbury.

Mr. T. V. Felton, Goods Agent, Nether-ton, to be Goods Agent, Albion.

Mr. W. Woodcock, Passenger Agent, Southport (Chapel Street), to be Passenger Agent, Preston.

Mr. H. G. Mott, Stationmaster & Goods Agent, Cricklewood, to be Stationmaster, Southend-on-Sea; also in charge of Southend East.

Mr. A. Stewart, Staff Assistant to Chief Officer for Scotland & Secretary of the Scottish Committee, Glasgow, to be Assistant to Chief Officer for Scotland, Glasgow.

Mr. J. Hastie, General Section, Office of Chief Officer for Scotland & Secretary of Scottish Committee, Glasgow, to be Assistant to Secretary of Scottish Committee, Glasgow.

Mr. T. Sweeney, Chief Clerk, District Goods & Passenger Manager's Office, Aberdeen, to be Goods Agent, Aberdeen.

Mr. A. Thomson, Stationmaster & Goods Agent, Wemyss Bay, to be Stationmaster & Goods Agent, Carstairs.

We regret to record the death on July 26 of Mr. E. W. L. Gardner, a Director of Norris, Henty & Gardners Limited.

We regret to record the death, at the age of 64, of Mr. William White, until recently General Manager of London Coastal Coaches Limited.

Among those recently transferred from associate membership to membership of the Institution of Civil Engineers is Mr. J. I. Campbell, Engineer (London), L.N.E.R.

Argentine Railways Sale Meetings

Meetings of a number of classes of Argentine Railway stockholders have been held, since our last issue went to press, to consider the scheme of arrangement between the Argentine Government and the British-owned railways in Argentina in connection with the sale of the railways. On July 30 stockholders of the Argentine Great Western Railway, and Villa Maria & Rufino Railway held meetings and cast proxy votes heavily in favour of the scheme. Mr. J. A. Goodge presided, and the voting was as follows:—

ARGENTINE GREAT WESTERN

Stock	No.	For Amount £	Against No.	Against Amount £
1st deb. ...	670	981,015	3	1,100
2nd deb. ...	657	941,058	1	200
5 per cent. deb. ...	2,338	3,167,806	1	5,000
6 per cent. gtd. pref. ...	1,502	1,927,315	8	2,515
5 per cent. pref'd. ...	674	1,085,823	7	33,200
Ordinary ...	641	1,299,992	3	6,440

VILLA MARIA & RUFINO

Stock	No.	For Amount £	Against No.	Against Amount £
1st deb. ...	210	468,818	5	—
Gtd. stock ...	135	199,727	5	2,700

On July 31 the meetings in connection with the Entre Rios Railways were held. Mr. B. H. Binder presided. Below are given the results of the voting:—

ENTRE RIOS RAILWAYS

Stock	No.	For Amount £	Against No.	Against Amount £
4 per cent. deb. ...	460	1,031,937	1	1,000
5 per cent. deb. ...	161	344,300	—	—
5 per cent. consd. ...	—	—	—	—
deb. ...	521	1,187,967	2	1,300
6 per cent. 1st pref. ...	770	1,022,405	6	4,208
2nd pref. ...	217	470,332	3	314
Ordinary ...	487	1,078,095	6	3,360

On August 1 stockholders of the Argentine North Eastern Railway Co. Ltd. met. Mr. B. H. Binder presided, and the results of the voting were as follow:—

ARGENTINE NORTH EASTERN

5 per cent. prior lien deb. ...	15	47	—	Nil
"A" deb. and debs. ...	377	640	—	Nil
"B" deb. and debs. ...	415	665	2	1,000
"C" deb. and debs. ...	168	404	1	60
Ordinary ...	260	1,586	19	20,400

Doubling the Gotthard Line

(Concluded from page 150)

ings were re-constructed in modern style and finished early in 1944.

Work on the Brunnen-Sisikon section was begun in 1944, but proceeded somewhat slowly as the authorities were compelled to limit the number of men and tonnage of cement that could be allocated to it. The position grew worse and operations had to be suspended early in 1945, but were resumed towards the end of the year. Shortage of labour continues to make itself felt and at the moment operations are about one year behind schedule.

The principal items of interest are the Morschach Tunnel just south of Brunnen, and the Frohnalp Tunnel. The existing up line has been re-aligned immediately below Brunnen, freeing the short Gütsch Tunnel for use eventually for road traffic, and the railway now enters the new Morschach Tunnel, which is an ordinary double-line tunnel for a short distance, after which it divides into two single-line bores. The right-hand tunnel diverges and brings the old line back to its location on the lake side, where shortly afterwards it enters the original Hochfluh Tunnel. The left-hand line traverses the new tunnel

and emerges at Petersort alongside the southern end of the Hochfluh Tunnel. Almost immediately, however, it enters the new Frohnalp Tunnel, 3,053 yd. long, and emerges at Dorni, alongside the end of the old Oelberg Tunnel, whence the two tracks follow the original alignment to Sisikon Station. The Morschach Tunnel is 1,492 yd. long on the down line, but only 608 yd. long on the up line. In all cases the new tunnels have been driven from both ends, and the greatest error on headings meeting has been only 30 mm. (1 $\frac{1}{16}$ in.). On this section also there were five tunnels on the old track, of which one has been abandoned, and there are two on the new alignment.

A new 282-ft. viaduct, with 10 spans, has been provided between Brunnen and the Morschach Tunnel. A very interesting piece of work is the new alignment of the well-known Axenstrasse at Dorni for a distance of some 870 yd., eliminating a level crossing. The road now passes through a tunnel in the rock over the ends of the Frohnalp and Oelberg tunnels.

Brunnen Station is being re-arranged and new signalling is to be installed. The permanent way—always of excellent quality in the days of company operation—has been renewed thoroughly on the running lines, which carried a very heavy traffic in the war years. The traction contact wire arrangements also are being rebuilt on the latest system, with weight compensators at about 1,094 yd. intervals. The cost of the Brunnen-Sisikon doubling was finally estimated at fr. 19,000,000.

The approach line from Rotkreuz, in existence in 1882, and those from Zug and Lucerne, opened in 1896-1897, are still single track, but, when doubling is complete between Brunnen and Sisikon, the only piece of single line between Immensee and Chiasso (129 miles) will be the short section on the Melide Dam.

Home for Aged Railwaymen

The board of management of the Railway Benevolent Institution states that a home for aged railwaymen and their wives, and the widows of railwaymen, has been established at "Boxhurst," Boxhill, near Dorking, which it is hoped will be ready for occupation in the coming autumn. Accommodation will be available for 16 residents, and it is the Board's desire that this "home" shall in fact be a home, and not an institution; a matron and staff will manage the household and look after the comfort of the residents.

In view of the limited accommodation, it is stated, it is essential the conditions of entry be strictly complied with:—

(1) Admission of residents to "Boxhurst" shall be regulated by the board of management, and all aged railwaymen (whether members of the Institution or not) and their wives, and the widows of railwaymen, shall be eligible. The minimum age for admission shall generally be regarded as 65 years for men and 60 for women, and provided they have no relatives or friends able and willing to care for them. Members of the Institution or their widows to have preference.

(2) Applicants must satisfy the Institution's Medical Officer of normal health. Chronic invalids and bedridden cases cannot be accepted.

(3) The amount of weekly payments by residents will be determined on the basis of "capacity to pay."

(4) Residents will be expected to assist in the home by undertaking suitable light duties.

(5) The home is furnished, but residents may, with consent, bring selected pieces of furniture (not bedding) for their own room.

(6) Residents will be expected to comply with the rules under which the home will be conducted. Any resident shall be liable to be removed on account of improper conduct or incurable or prolonged illness, or for such reason as the board may consider adequate.

Applications for admission should be made to the General Secretary, R.B.I., Wyke House, Castlebar Hill, Ealing, W.5.

Lt.-Colonel Everard Receives the D.S.O.



Lt.-Colonel H. B. Everard, Assistant Engineer (Permanent Way), Chief Civil Engineer's Department, L.M.S.R., with his wife and daughter outside Buckingham Palace after receiving from the King the D.S.O. for "gallant and distinguished services in the field"

The Transport Bill

House of Commons considers further Lords amendments

In the House of Commons on Monday, August 4, consideration was given to further Lords amendments, which were referred to briefly in our last issue, moved in lieu of those rejected by the Commons previously.

Mr. Alfred Barnes (Minister of Transport) first moved that the House reject a series of three amendments linked together to increase the operating radius of "A" and "B" licensees from 25 miles to 40 miles.

DEMAND FOR FIGURES

In connection with a statement by the Minister that, if the operating radius were increased, the Government would lose a number of vehicles and the plan would be unworkable, members of the Opposition rose to press the Minister to disclose the figures.

When Mr. Barnes did not reply, these requests became protests and at 1.40 a.m. Sir David Maxwell Fyfe (West Derby—C.) rose to move the adjournment of the debate so that the Minister could obtain the information.

He was immediately ruled out of order by the Speaker on the grounds that, having spoken previously, he had exhausted his right to further discussion.

Mr. Anthony Eden (Warwick & Leamington—C.) then rose to put the motion. There were repeated interruptions from Government back benches in the course of his remarks.

Mr. Eden said that he moved the adjournment for three reasons, first, because the Minister claimed that he had already given the figures, but that he should repeat them after the requests; second, that he had the information but did not wish to give it; third, that he had not got the information—and the course of the discussion led one inevitably and reluctantly to that conclusion.

Most of the Opposition members spoke in favour of the adjournment, among them Mr. Geoffrey Nicholson (Farnham—C.) who said that the Minister had not been man enough to admit he had made a fool of himself. Amid shouts of order: "He is either making a fool of the House or making a fool of himself."

Lt.-Colonel F. C. Byers (Dorset Northern—L.) said he believed that this was one of a number of occasions which had occurred throughout the Bill when the Minister did not know what he was going to do. He had no clue as to what he was taking over because the Bill had not been thought out properly.

"A MOCKERY"

Sir David Maxwell Fyfe suggested that it was a mockery to take away the livelihood of thousands of people as the Government was apparently doing without the House getting the information to which it was entitled.

The debate continued until Mr. Whiteley, Chief Government Whip, moved the closure. This was carried by 178 to 77, and the motion by Mr. Eden to adjourn the debate being defeated by a similar majority; the three amendments were rejected by the House on a division by 171 votes to 76.

The House spent another hour and a half discussing the next Lords amendment, which sought to raise from 25 miles to 40 miles the distance which "A" and "B" licence holders are to be allowed to carry goods without a permit from the

Commission; and, finally, the Lords proposal was defeated by 159 to 66.

The proceedings on the Transport Bill did not end until 6.15. In the last division, exactly 200 members trooped through the lobbies, the figures being 144 for the Government and 56 for the Opposition.

Parliamentary Notes

L.M.S.R. Bill

The London Midland & Scottish Railway Bill was read the third time with amendments in the House of Lords on July 28. A further amendment was made and the Bill was passed, and returned to the House of Commons. On July 31 the Lords amendments were considered by the House of Commons and agreed to.

L.N.E.R. Bill

The London & North Eastern Railway Bill was read the third time, with the amendments, in the House of Lords on July 30, passed, and returned to the House of Commons.

Increase in Railway Charges

In the House of Commons on Tuesday, August 5, Mr. Alfred Barnes, Minister of Transport, said it would be recalled that on July 21 he had stated that the pooled net revenues of the controlled railways were estimated to fall short of the fixed annual sums payable to the railways under the Control Agreement by £37 million in 1947, and by £28 million in 1948. He also stated that the estimated cost of implementing the recommendations of the Court of Inquiry into wages and hours of railwaymen, which had been accepted since, would be £22 million in 1947 and £37 million in 1948.

These estimates indicated total shortfalls of about £59 million in 1947 and £65 million in 1948 respectively. In the light of these figures, the Government had decided that the charges made by the railway companies must be increased to such an extent as to produce additional revenue of about £65 million in 1948, while making some contribution to reduce the liability falling on the Exchequer this year.

During the war and the immediate post-war period, when passenger travel was at a high level, it was decided that ordinary passenger fares should bear a higher rate of increase, namely, 33½ per cent., than other railway charges, which increased by 25 per cent. They had come to the conclusion that this differentiation should now cease, and, accordingly, all railway charges would be raised to 55 per cent. above pre-war with effect from October 1 next. This would represent an increase over present charges of 16½ per cent. in the case of ordinary passenger fares and rates for merchandise by passenger train, and of 24 per cent. in the case of other rail charges.

The question as to whether the relationship between the various types of charge should be varied would be one for the Transport Tribunal, which would settle the charges schemes of the British Transport Commission after considering the views of the Commission and of bodies representative of all classes of users.

At the railway-owned docks, where the increase in certain charges on coastwise liners and their cargoes was 15 per cent. over pre-war, this low rate of increase would be raised to 25 per cent., but extended to all coastwise vessels and their cargoes. Other dock charges would be

raised from 40 per cent. to 75 per cent. above pre-war.

The yield of the increase in all charges was estimated at about £15½ million in 1947, thus leaving the Exchequer to meet a balance of £43½ million, and about £65 million in 1948.

Questions in Parliament

First Class Sleeping Berths

Lady Grant (Aberdeen South—C.) on August 1 asked the Minister of Transport how many first class sleeper berths were retained by his department; and to what officials they were allocated.

Mr. Alfred Barnes in a written answer stated: Out of a weekly total of 7,088 first class sleeping berths on all routes some 20 per cent. are reserved by my department for priority passengers. This 20 per cent. is allocated approximately as follows:—Business and professional men, 66 per cent.; Peers and Members of Parliament, 24 per cent.; Armed services, 6 per cent., and Civil Servants, 4 per cent.

Rail and Road Fares

Mr. C. Osborne (Louth—C.) on July 28 asked the Minister of Transport if he was aware that railway fares were double bus fares from Louth to most places in Lincolnshire; and what steps he would take to reduce railway fares and so attract passengers from the overcrowded buses to the half-empty trains.

Mr. Alfred Barnes, in a written answer, stated: I am aware that there are differences between rail and road fares in many areas. Under present conditions it would not be possible to remove them. Bus fares are related to individual services and vary widely in different localities, whereas railway fares are generally on a basis applicable throughout the country. I have no doubt, however, that the matter would be considered in connection with the preparation and settlement of the charges schemes of the British Transport Commission.

Season Tickets on Buses

Mr. Hector Hughes (Aberdeen North—Lab.) on July 7 asked the Minister of Transport if, in order to save time, money, labour and material, he would arrange for season tickets on the London buses.

Mr. Alfred Barnes: No. I am advised that the introduction of season tickets on its buses would not, on balance, result in savings to the London Passenger Transport Board. The work of conductors would be greatly complicated. There would thus be no justification for rates representing a reduction in ordinary fares, without which there would be little advantage to the public. It would be extremely difficult to frame schedules of rates to cover the numerous routes and possible journeys.

Mr. Hughes: Does not the Minister realise that this would be of great convenience to the humble persons who use buses, and what practical objection can there be to saving time, paper and labour in this way?

Mr. Barnes: If Mr. Hughes will look at the answer, I think he will see that I have dealt with that point.

Lt.-Commander Gurney Braithwaite (Holderness—C.): Was it not the case that before the war season tickets were issued on the London Transport system for workers who had to make part of their journey by bus and part by tube, and cannot that facility be restored?

Mr. Barnes: If Commander Braithwaite is referring to the T.O.T. pass, that is another question.

New Railway Wagons

Mr. A. Edward Davies (Burslem—Lab.) on July 28 asked the Minister of Transport how many, and what types of, new railway wagons had been put into service so far this year; and what was the target for 1947.

Mr. Alfred Barnes (Minister of Transport) replied that 14,640 goods and mineral wagons and 1,540 of other types so far had been put into service; the target figure for all types was 47,000.

Production of Railway Wagons

Mr. P. Piratin (Stepney, Mile End—Comm.) on July 21 asked the Minister of Supply what production of railway goods wagons was proceeding at Royal Ordnance factories.

Mr. J. Wilmot (Minister of Supply) stated in a written answer: Railway mineral wagons are being constructed at the Royal Ordnance Factories at Dalmeir, Patricroft, and Woolwich to the full extent that the supply of components allows.

Production of Coal Wagons

Brigadier R. Rayner (Totnes—C.) on July 28 asked the Minister of Supply what was the present monthly production rate of the 50,000 16-ton coal wagons ordered; and what monthly production rate had been anticipated at the time of the order.

Mr. John Wilmot: Production is running at a rate of about 1,500 a month. It was originally intended to complete the order in five years, which would have meant an over-all average output of rather less than 1,000 a month.

Eastleigh Requisitioned Site

Mr. George Jeger (Winchester—Lab.) on July 22 asked the Secretary of State for War whether he would now derequisition the derelict site at Chickenhall Lane, Eastleigh, Hampshire, so that the Southern Railway Institute & Club might resume its sports activities.

Captain F. Bellenger (Secretary of State for War): The accommodation is now under the control of the Ministry of Health for temporary civilian housing purposes. The Southern Railway Sports Club has been given the use of the football ground for recreational purposes.

Sunday Fares on Electric Trains

Mr. E. H. Keeling (Twickenham—C.) on July 21 asked the Minister of Transport whether he had made inquiries as to the extent to which electric trains on Sundays were filled; and whether he had reconsidered the introduction of cheap fares at all or certain seasons of the year on such electric lines as could carry additional passengers without providing additional trains.

Mr. Alfred Barnes: I assume Mr. Keeling has particularly in mind the suburban services of the Southern Railway. I have examined his suggestion sympathetically, but I am advised that, while some trains outward are not fully loaded, there is a concentration of returning passengers on Sunday evenings, and any additional traffic would generally need an increase in services to clear the passengers. It would be impracticable to apply a system of cheap fares to particular services only, according to the density of the traffic using them.

Mr. Keeling: Will the Minister send me the figures on which the first part of his reply is based? Also, does he think that the lack of enterprise shown, under Government control, in this matter, will be in-

tensified or reduced under national ownership?

Mr. Barnes: I will certainly see if there is any further information which I can submit to Mr. Keeling.

District Line to Barking

Dr. Somerville Hastings (Barking—Lab.) on July 28 asked the Minister of Transport what steps it was proposed to take to relieve the congestion on the District Line to Barking.

Mr. Alfred Barnes stated in a written answer: I am glad to say that on this line the London Passenger Transport Board proposes to increase 34 of the trains from 6 cars to 8 cars and to run 2 additional 8-car trains. All these trains will be in service during the morning and evening peak hours. The improvements will be completed during the next few weeks.

Repair of Railway Wagons

Mr. A. Edward Davies (Burslem—Lab.) on July 28 asked the Minister of Transport what special steps were being taken to speed up the repair of crippled wagons loaded *en route* and at wagon works.

Mr. Alfred Barnes: Capacity for repairs of wagons has been reinforced by the use of Royal Ordnance factories and other premises not normally engaged on this work, and this process is continuing wherever suitable works can be made available. The output of repairs is now some 2,000 to 3,000 a week in excess of corresponding output last year, in spite of shortage of materials, especially steel and timber. Priority of supply has been granted, and as it becomes effective in increased deliveries output of repairs should improve still more.

Transport of Bombs by Rail

Major J. Morrison (Salisbury—C.) on July 23 asked the Secretary of State for Air what tonnage of R.A.F. surplus bombs, due for dumping in the sea, had been transported since January 1, 1946, from Wiltshire to Stranraer in Scotland; and, in view of the shortage of rolling stock, why a more direct route to the sea had not been made use of.

Mr. Philip Noel-Baker (Secretary of State for Air), in a written answer, stated: From January 1, 1946, to the end of June, 1947, about 11,000 tons of bombs were transported for disposal from Wiltshire to Stranraer. After full consideration, all the departments concerned, including the Ministry of Transport, agreed that Stranraer was the most suitable port for the purpose, and that transport must be by rail. I am writing to Major Morrison to explain the technical reasons for this decision.

Scrapping of Railway Wagons

Brigadier R. Rayner (Totnes—C.) on July 28 asked the Minister of Transport what instructions had been given by his department about the scrapping of old wooden railway wagons.

Mr. Alfred Barnes: In August, 1946, I issued instructions that requisitioned wagons built prior to 1901 should be withdrawn from traffic when they required certain uneconomic repairs. The majority of these wagons are being broken up to provide material for repairs to other stock, and a number are being employed for internal user purposes.

Brigadier Rayner: Is the Minister aware that a good many of the big wagon-repairing firms consider that old but repairable wagons are being broken up under Government instructions much faster than new ones are being provided, and that this fact is likely to add to the gravity of the severe

transport crisis which will soon be upon us?

Mr. Barnes: Sometimes there is truth in general observation, but it is much more helpful if the facts can be submitted so that they can be examined.

Railway Bridges

Mr. W. McAdam (Salford North—Lab.) only July 7 asked the Minister of Transport if he would state the number of bridges on public roads conveying traffic over railways for whose upkeep the four main-line railway companies were responsible.

Mr. Alfred Barnes, in a written answer, stated: The main-line companies and the London Passenger Transport Board are responsible for the upkeep and maintenance of the structure of 12,448 bridges carrying public roads over the railways. Of this number, 705 bridges carrying trunk roads have been transferred to me under the Trunk Roads Act, 1946, but the companies are continuing to maintain the bridge structures on my behalf.

Turn-round of Railway Wagons

Mr. A. Edward Davies (Burslem—Lab.) on July 28 asked the Minister of Transport what special action was being taken to improve the turn-round of railway wagons at terminal depots in view of the urgent need for rolling stock.

Mr. Alfred Barnes: Reduction of turn-round depends on two factors, reduced time in transit, and quicker loading and unloading at terminal points. The railway companies are paying close attention to both, but in the case of delays at terminals require the active co-operation of employers and workpeople. Instructions have been issued to all Government departments, and the active assistance of the Regional Board, the National Production Advisory Council for Industry and the National Coal Board has been enlisted. The National Joint Advisory Council also has agreed to co-operate. I am grateful to Mr. Davies for giving me this opportunity of impressing on all concerned the importance of speeding up the loading and release of wagons and other means of transport, in particular on Saturdays in establishments conditioned to a five-day week. Saving one day in turn-round on each journey would give us 50,000 extra wagons.

Mr. Davies: Would the Minister consider whether it would be helpful to increase demurrage charges so as to penalise the people who are delinquents in regard to railway wagons; and would he take account of the fact that wagons are sometimes scrapped merely because they are somewhat old, but which have, in fact, been rebuilt in the course of their running on the railways?

Mr. Barnes: The question of the increase in the demurrage charges has been very carefully considered, but the opposition to it from traders generally is very strong, and, so far, it has not been felt necessary to impose that additional charge on industry. I hope that co-operation may give us better results. With regard to the point about more wagons, I could not, of course, give any assurance that an occasional mistake has not been made in the examination dealing with over one million wagons, but I think that, on the whole, care is taken to sort out the good ones.

Mr. Evelyn Walkden (Doncaster—Lab.): Is not the statement which the Minister has delivered to the House very similar to the arrangements which were in operation last winter when we lost 232,000 tons of coal due to the shortage of wagons and locomotives; and can he tell us whether anything besides persuasion is going to be

put into operation this winter? Will there not be some form of punishment for those who do not help the nation to see that wagons get a quicker turn-round?

Mr. Barnes: I would not say that the position this year is exactly the same as last.

Mr. Walkden: Very nearly. Mr. Barnes: Not at all. The priority being accorded to locomotives and wagons should make a very substantial addition to the output. With regard to the point about the loss of coal, Mr. Walkden should realise that coal is lost every winter in peacetime in this country through dislocation, from time to time, in transit facilities.

Lieutenant William Shepherd (Bucklow—C.): Can the Minister say what percentage of wagon repairs has been lost by the reduction in working hours?

Mr. Barnes: I could not give a reply without notice, but, obviously, it is fairly substantial.

Mr. J. A. Sparks (Acton—Lab.): Is the Minister satisfied that there is adequate equipment for loading and unloading at railway terminal points?

Mr. Barnes: No, I am not satisfied.

L.P.T.B. 44-hr. Week

Sir Waldron Smithers (Orpington—C.) on June 30 asked the Minister of Transport how many extra men and women would be required to maintain the same service as at present when the 44-hour week came into operation on the L.P.T.B.

Mr. Alfred Barnes, in a written answer, stated: About 2,000; but it has been agreed that, until they can be recruited, the necessary overtime will be worked.

L.P.T.B. Improved Working Conditions

Mr. Ernest Davies (Enfield—Lab.) on July 21 asked the Minister of Transport if he would state the cost of the recent improvements in working conditions granted certain employees of the L.P.T.B.

Mr. Alfred Barnes: The London Passenger Transport Board estimates that the cost, in 1947 and 1948, of giving effect to the agreements which operated from June 25, 1947, will be about £775,000 and £1,410,000, respectively.

L.P.T.B. Passenger Journeys

Mr. J. A. Sparks (Acton—Lab.) on July 28 asked the Minister of Transport if he would state the percentage increases in passenger journeys, average distance travelled and passenger-miles run on the L.P.T.B. system in 1946 as compared with 1938-39.

Mr. Alfred Barnes replied that the percentages were 12.6, 17.8, and 32.7, respectively.

Lieutenant W. Shepherd (Bucklow—C.): In view of this increase in the mileage, can the Minister explain why he is not able to reduce fares?

Mr. Barnes: I am afraid I cannot deal with that matter in question and answer.

Cross-Channel Sailings

Sir Ronald Ross (Londonderry—C.) on July 28 asked the Minister of Transport whether he was satisfied that the number of sailings of cross-Channel vessels now permitted from Great Britain to Northern Ireland would meet all reasonable demands during the holiday season.

Mr. Alfred Barnes: While it cannot be guaranteed that every intending traveller to or from Northern Ireland will be able to get a passage on certain days during the peak holiday period, I am advised that, with the additional sailings recently authorised, the services will be reasonably adequate in all the present circumstances.

Sir Ronald Ross: Can the Minister say

how far ahead it is necessary to book passages to Northern Ireland from Liverpool or Heysham? How many days does it take?

Mr. Barnes: I am afraid I cannot say. Sir Ronald Ross: Will the Minister inquire?

Mr. Barnes: Yes.

Mr. T. C. Skeffington-Lodge (Bedford—Lab.): Can the Minister assure the House that travelling facilities are adequate for those who seek the carefree and democratic atmosphere of Southern Ireland?

Professor D. L. Savory (Belfast University—C.): Would the Minister consider whether the *Princess Margaret* now lying up at Stranraer, which is only used on Fridays and Saturdays, could not run a daylight service as she used to do before the war?

Mr. Barnes: I would remind members that the problem is not so much one of providing adequate capacities, but of ensuring that the shipping services make their contribution to the saving of coal during the summer.

Mr. W. Gallacher (West Fife—Comm.): Is the Minister aware that Northern Ireland is a very popular and desirable place for holidays, as distinct from permanent residence, and would he see that everything is done to meet the great demand for shipping holiday makers to Northern Ireland?

Mr. Barnes did not reply.

European Central Inland Transport Organisation

Mr. Douglas Jay (Battersea North—Lab.) on July 21 asked the Minister of Transport whether, in view of the importance of transport in the economic recovery of Europe the European Central Inland Transport Organisation would be kept in being until its activities were taken over by the Economic Commission for Europe.

Mr. Alfred Barnes: As I informed Mr. Jay on May 12 last, the position of this organisation was precarious owing to the failure of certain countries, chiefly the U.S.S.R., to pay in full their outstanding contributions. Representations to these countries did not produce sufficient funds to enable the staff of the organisation to be paid beyond June 30, with the unfortunate result that it is now in process of dissolution, and, indeed, some of the staff are not receiving payments due to them. I much regret the situation that has arisen, as the activities of this transport organisation were making an exceedingly valuable contribution to the rehabilitation of Europe. Moreover, this precipitate dissolution means that the desire of both the Economic & Social Council and the Economic Commission for Europe that the essential work of this organisation should be continued until it can be taken over by the commission cannot now be carried out.

Locomotive Production in Germany

Mr. R. R. Stokes (Ipswich—Lab.) on July 14 asked the Secretary of State for Foreign Affairs whether he would give an assurance that no part of Krupp's works normally engaged on locomotive production would be blown up, even though part of such works might from time to time have been engaged on armament production.

Mr. Hector McNeil (Minister of State): No part of Krupp's Gusstahlfabrik at Essen which was normally engaged on locomotive production, and which is required for the locomotive repair programme, or which ultimately may be required for building locomotives, has been scheduled for demolition at present. Other sections of the factory which were

normally engaged on locomotive work and which are required for locomotive repairs are also exempted from the present demolition and reparation programme.

Mr. Stokes: Is the Minister really quite sure about this, because some of us have information which is quite contrary? Would he be of the opinion that this is the wrong moment to blow up anything? What purpose can be served two years after the war in indulging in this belated bombardment?

Mr. McNeil: If Mr. Stokes has any information on the subject I will be glad to consider it, because I am most anxious to ensure that there is no loss of potential plant for locomotive production, but I should not like to commit myself to the general statement that this is not the moment to blow up anything.

Mr. C. R. Hobson (North Wembley—Lab.): Is the Minister aware that a large part of these works is quite capable of use in the construction and repair of locomotives for which there is such an urgent need in Germany, and, indeed, in Europe, and why cannot construction and repair of locomotives take place where the rails are already laid down and where the lathes and milling machines are?

Mr. Stokes: In view of the importance of the matter, will the Minister ensure that there is no more blowing up until really competent people with practical experience review the whole situation? I beg to give notice that I will raise this matter on the adjournment at the earliest possible moment.

Rolling Stock in Western Germany

Mr. T. C. Skeffington-Lodge (Bedford—Lab.) on July 14 asked the Secretary of State for Foreign Affairs whether he would make a statement about the increasingly serious position regarding rolling stock in western Germany; and whether he would explain the reason for that, and say what steps were being taken to improve it.

Mr. Hector McNeil (Minister of State): The present shortage of rolling stock in western Germany has come about because German industry cannot provide the materials necessary for current repairs. It is even less able to deal with war-damaged rolling stock still awaiting repair. Stocks of materials and of equipment which could be used for "cannibalisation" are now exhausted, and the railways are dependent on current production of materials, so that there has been a decline in the numbers of serviceable rolling stock.

There has also been a fall in the number of wagons available in consequence of the restitution of rolling stock to Allied owners. The Military Government is fully aware of the urgent necessity for improving the supplies of materials for repairs.

Mr. Skeffington-Lodge: Is the Minister aware of the fact that Czechoslovakia, particularly, hangs on to the wagons which go over the border, and will he make representations to them that we want these wagons sent back to Germany to ease the position there?

Mr. McNeil: While we have a difficulty with certain Powers, I must say that we have found the behaviour of Czechoslovakia in this matter to be exemplary.

Sir Waldron Smithers (Orpington—C.): Is not the shortage of rolling stock due to the fact that there is a pool agreement, and that Russia has failed to keep her agreement to return the empty wagons?

Mr. McNeil: The primary reason for the shortage I have already given in a rather long reply.

Notes and News

L.M.S.R. Holyhead—Kingstown Sailings Extended.—The L.M.S.R. announces that the day sailings on the Holyhead-Kingstown route will be continued every weekday until Saturday, August 30. Sailing tickets are still required.

Accountant Required.—An accountant, age 24 to 34 years, is required by the Government of the Gold Coast for the railway department, for two tours of 18 to 24 months' non-pensionable service. See Official Notices on page 167.

Machine Tool Exhibition.—With reference to the paragraph in our last week's issue, the Machine Tool Trades Association International Exhibition will be held in August next year, and will be called the Machine Tool & Engineering Exhibition, London, 1948.

Assistant Transportation Manager Required.—An assistant transportation manager, 30 to 35 years of age, is required by the Malayan Government for the railway department, for one tour of three years with prospect of permanency. See Official Notices on page 167.

Industrial Oil-Engine Exhibits.—The firm of Ailsa Craig Limited, Chiswick, London, W.4, will have on view at the Engineering & Marine Exhibition, which opens at Olympia, London, on August 28, various types of diesel engines designed for marine use and all kinds of industrial and traction purposes.

Temporary Engineering Assistant Required by L.P.T.B.—A temporary engineering assistant is required by the London Passenger Transport Board for headquarters drawing office, Department of Chief Engineer. Applicants should have had some sound theoretical training and some practical experience in dealing with maintenance problems connected with earthworks, foundations, retaining walls, and concrete construction. See Official Notices on page 167.

Nitrate Acquisition Uncertainties.—The statement by the Chairman, Mr Patrick L. Fleming, which is issued with the report and accounts of the Nitrate Railways Co. Ltd., refers to discussions which have taken place this year with regard to the proposed acquisition of the system by the Chilean State Railways. A Decree implementing the Expropriation Decree of August 28, 1941, was promulgated last July (see our August 2, 1946, issue, page 114), but advice was received later that

the Decree had been suspended (see our August 16, 1946, issue). From February until June this year, Mr. H. W. Holmden, a director of the company, has participated in discussions with the Chilean Government and other interested parties, but no final arrangements have been agreed which will safeguard the interests of the shareholders and of Chile.

Deputy Chief Engineer Required.—A deputy chief engineer, preferably under 45 years of age, is required by the Port of London Authority. Candidates must be chartered civil engineers and have had wide experience in responsible positions in dock and harbour construction. See Official Notices on page 167.

Channel Islands Passenger Traffic.—In 1947, Southern Railway ships have conveyed 50,000 people to the Channel Islands; this represents an increase of 84 per cent. over figures for the first half of 1938. Of the 27,000 passengers carried since May 23 this year, 21,000 travelled on Fridays, Saturdays, or Sundays.

Assistant Engineers Required for Colonial Engineering Service.—Assistant engineers, not more than 35 years of age, are required for the Railways and Ports Administration of Tanganyika Territory. Candidates should have had experience of civil engineering as applied to railways, both construction and maintenance, but candidates lacking this experience may be considered if otherwise well experienced in general civil engineering construction and if desirous of making a career in railway engineering. See Official Notices on page 167.

Selection of C.A.V. Products at Olympia.—The two main groups of products made by C.A.V. Limited, Acton, London, W.3, will be represented at Olympia when the Engineering & Marine Exhibition opens on August 28. The exhibits will include fuel-injection equipment and low-voltage equipment covering a wide range of marine and industrial engines. For example, fuel injection will be represented by various C.A.V. pumps, sectioned to show internal construction, representative of the range supplied by this firm, and these will include a pump for a six-cylinder oil engine with enclosed camshaft and variable-speed-range governor, a four-element unit with pneumatic governor, another four-element unit of the flange-mounted type without camshaft, and a six-element unit with flyweight governor and diaphragm feed pump. A demonstration model will show the working of the

C.A.V. fuel-injection pump element and injector. The electrical exhibits will include dynamos for 6-, 12-, and 24-volt circuits in sizes from 4½ in. to 8 in. dia., and with maximum load outputs ranging from 80 to 1,680 watts. Various types of electrical engine starters will be displayed, including the Axial type and the 7-in. type with two-stage operation, as well as a selection of Nife alkaline batteries.

General Electric Dividend.—An ordinary dividend for the year to March 31, of 10 per cent., together with a bonus of 7½ per cent., less tax, has been recommended by the directors of the General Electric Co. Ltd. A preliminary statement of results for the year shows that the profit, after providing for E.P.T. and profits tax, was £2,270,965, compared with £2,300,554 for the previous year. After deducting income tax and other charges, the net balance was £905,201, as compared with £956,413 in 1945-46.

More Peak-Hour Trains on London Transport Upminster Line.—To meet serious overcrowding caused by the increase of traffic on the District Line between Aldgate, Barking, Dagenham, and Upminster, London Transport is augmenting the peak-hour service on this line. A total of 34 trains a day will be increased from 6 to 8 cars. In addition, two new 8-car trains are being run. Half of the lengthened trains came into service on August 4 and the remainder of the increased service will be brought into operation during the next few weeks.

L.N.E.R. Ambulance Challenge Shield.—The L.N.E.R. Ambulance Challenge Shield competition was held recently at the headquarters of the St. Andrews Ambulance Association in Glasgow. This shield was presented in 1927 by the company for annual competitions between ambulance teams representative of the L.N.E.R. in Scotland and England. The competition is held alternately in Scotland and England, and since the inception the shield has been won nine times by England and five times by Scotland. This year the two teams representing Scotland, namely, Kipps and Portobello & District, were highest in the L.N.E.R. Scottish Railways Ambulance Shield competition; and, for England, Nottingham (Victoria) and March "A" held similar positions in the L.N.E.R. English competition. The arbiters were Dr. A. C. White Knox, London (individual tests) and Dr. Thos. F. Greenhill, Glasgow (team

Austerity Locomotives at Parkeston Quay, L.N.E.R.



Some of the W.D. 2-8-0 austerity locomotives, which have been returned from the Continent, at Parkeston Quay, L.N.E.R.

test). The result of the competition was as follows:—

	Placing of team	Individual test	Team test	Total
Kipps ...	3	107	162	269
Portobello & District ...	1	162	150	312
Nottingham (Victoria) ...	4	119	142	261
March "A" ...	2	137	134	271

The prizes were presented by Lt.-Colonel the Hon. Arthur C. Murray, Director of the L.N.E.R. and Chairman of the Scottish Area Board.

British Timken Limited.—A net profit of £83,673 was shown for 1946, being an increase of £13,313. Mr. Michael Dewar, the Chairman, forecast difficult months ahead at the company's annual meeting, but in spite of obstacles their production per man-hour was increasing. They found that under the present system of bureaucracy it took two or three months to place an order for alloy steels in America that could have been placed in two or three days under a system of private enterprise.

North Central Wagon & Finance Co. Ltd.—Profits for the year ended June 30, after taxation, were £102,326, an increase of £29,324. After allocating £10,000 to reserve, as in the previous year, and £5,000 to pensions, and making provision for an ordinary dividend of 12½ per cent., there remains £32,987 to be carried forward. Last year the company paid a dividend of 10 per cent., plus a bonus of 5 per cent. from capital reserve. Part of the company's holding in Wagon Repairs Limited has been realised at a capital profit of £80,463, which has been added to the capital reserve account.

Railway Convalescent Homes.—The income and expenditure account of the Railway Convalescent Homes for the year ended December 31, 1946, shows an income of £53,087 and expenditure of £71,119, leaving a balance of expenditure over income of £18,032. The income was made up of £44,049 from railway staff collections; £3,496 from donations from the public, etc.; £4,446 from investments (including income tax recoverable); and £1,096 from sundries. Expenditure on maintenance was £62,843, and on administration, £8,276. The number of patients who used the homes in 1946 was 6,497, which included 4,323 men, 2,047 women, and 127 babies.

Stewarts and Lloyds Limited.—Mr. A. G. Stewart, Chairman of Stewarts and Lloyds Limited, presiding at the recent general meeting of the company in Glasgow, said that the board had given most careful consideration to the allocation of profits and payment of dividends. A provision of £500,000 had been made for obsolescence. It was considered in the best interests of the deferred stockholders to maintain the rate at 12½ per cent. for the tenth consecutive year. The company had been able to meet the essential requirements of the country for all classes of tubes, pipes, and fittings, but the export demand was greatly in excess of their ability to supply. Deliveries to export markets exceeded the 1938 tonnage by 24 per cent. In the latter part of 1946, exports were restricted in conformity with the Government's policy for the iron and steel industry as a whole. Further substantial reductions in exports had been ordered for the current year. The Chairman said he felt more strongly than ever that it would be against the national interest and the interest of the industry to handicap them at this stage with any further form of Government control.

Faced as they were with a most intricate problem in planning for the very large increase of their tube and steel output, he was quite certain that if the Government was to take over the industry, the changed control and the re-examination of the plans already so carefully evolved could lead only to serious delays in carrying out these vast schemes.

Engineering Assistants Required.—Junior civil engineers are required by Coras Iompair Éireann. Experience is desirable, but not essential. See Official Notices on page 167.

Crossley Motors Limited.—A profit of £65,892 was shown for the year ended March 31 last, after deduction of income tax. The figure includes an estimated E.P.T. refund of £45,000, and compares with £65,325 for the previous year. The directors recommend a dividend for the year of 15 per cent., and a bonus of 5 per cent., less tax at 9s. in the £.

L.M.S.R. Engineering Contracts.—Orders have been placed by the L.M.S.R. with Charles Booth & Son, Lidget Green, Bradford, Yorks., for the reconstruction of the retaining wall at Elizabeth Dock, Maryport, and with the General Asphalt Co. Ltd., Hope House, Great Peter Street, London, S.W.1, for asphalt floor finishings to certain platforms, subways, and inclined approaches to subways at New Street Station, Birmingham.

Welding Thick Steel Plates.—The latest addition to the range of Murex electrodes is known as Ferex. This electrode is of the ferritic type and was designed in the first place for welding tank armour. Details of its uses and advantages, which include the minimising of hard-zone cracking in high-carbon and alloy high-tensile steel so that thicker plates and more difficult steel can be welded, may be obtained from the makers, Murex Welding Processes Limited, Waltham Cross, Herts.

L.M.S.R. Contracts: Office Accommodation at Euston Station.—The following contracts have been placed by the L.M.S.R. in connection with the rehabilitation of office accommodation at Euston Station, London, to which the various headquarters staffs will be transferred as soon as practicable from the wartime offices at Watford:—

Norris Warming Co. Ltd., Theobalds Road, London, W.C.1, for heating installations.

William Freer Limited, 49, Red Lion Street, High Holborn, London, W.C.2, for heating and hot-water services at the staff hostel, Euston Square.

Turners Asbestos Cement Co. Ltd., Trafford Park, Manchester, for asbestos spraying.

Rashleigh Phipps & Co. Ltd., 2, Hanover Square, London, W.1, for lighting and inter-office telephonic communications.

James Carmichael (Contractors) Limited, Trinity Road, London, S.W.18, for general alterations and redecorations.

Auxiliary Power for G.W.R. Steamer "St. David."—The auxiliary machinery for this new vessel, which, as was reported in our issue of August 1, recently has entered the Fishguard-Rosslare service, was supplied by Associated British Oil Engines Limited, 30, Duke Street, London, S.W.1. To supply the power required, two 90-kW. diesel-electric sets have been installed, each comprising a McLaren "MR 8" airless-injection four-stroke engine capable of developing 135

b.h.p. at 800 r.p.m., direct-coupled to an enclosed ventilated drip-proof compound-wound Sunderland Forge d.c. generator having an output of 90 kW. at 220 volts. The engines are started by a vane-type air motor and work with a Bendix pinion on a flywheel gear fitted to each engine.

Metallizing Equipment.—At the Engineering & Marine Exhibition, to be held at Olympia, London, from August 28 to September 13, the Metallizing Equipment Company, 58-60, Victoria Street, London,

British and Irish Railway Stocks and Shares

Stocks	Highest 1946	Lowest 1946	Prices	
			Aug. 5, 1947	Rise Fall
G.W.R.				
Cons. Ord. ...	61½	54½	54½	— 1
5% Con. Pref. ...	126½	107	115½	— 1
5% Red. Pref. (1950) ...	106½	102½	100½	—
5% R. Charge ...	140½	122½	129½	—
5% Cons. Guar. ...	137½	118½	127½	— 1
4½ Deb. ...	129½	106	118½	— ½
4½ Deb. ...	129½	107	118½	— 1
4½ Deb. ...	130½	114	120½	— 1
5% Deb. ...	142½	125	130½	— 1
2½ Deb. ...	95½	81½	87½	— 1
L.M.S.R.				
Ord. ...	30½	26½	27½	—
4% Pref. (1923) ...	64	52½	56½	— 1
4% Pref. ...	86	75½	76½	— ½
5% Red. Pref. (1955) ...	105½	97	95½	—
4% Guar. ...	108½	100	98½	— 1
4½ Deb. ...	120	103	108½	— ½
5% Red. Deb. (1952) ...	108½	105½	101½	—
L.N.E.R.				
5% Pref. Ord. ...	7	5	6½	—
Def. Ord. ...	3½	2½	3½	—
4% First Pref. ...	59½	50½	52½	—
4% Second Pref. ...	29½	25½	26½	—
5% Red. Pref. (1955) ...	104	97	94½	—
4% First Guar. ...	107	98	96½	— 1
4% Second Guar. ...	101	90	90½	— 1
3½ Deb. ...	104	87½	94½	— ½
4½ Deb. ...	119½	102½	108½	—
½ Sinking Fund				
Red. Deb. ...	107½	101½	100½	—
SOUTHERN				
Pref. Ord. ...	79½	70	70½	— ½
Def. Ord. ...	24	19½	21½	—
5% Pref. ...	125½	107	114½	— 1
5% Red. Pref. (1964) ...	115½	106½	107½	— 1
5% Guar. Pref. ...	137½	119	127½	— 1
5% Red. Guar. Pref. ...	115½	107½	107½	—
4½ Deb. ...	129½	105½	118½	— ½
5% Deb. ...	139½	125½	128½	— 1
4% Red. Deb. (1962-67) ...	113½	104½	105½	—
4% Red. Deb. (1970-80) ...	115½	104½	106½	—
FORTH BRIDGE				
4% Deb. ...	109	103	99½	— 1
4% Guar. ...	105	102	95½	— 2
L.P.T.B.				
4½ "A" ...	133½	120½	121½	— 1
5% "A" ...	142½	130½	131½	—
3% Guar. (1967-72) ...	108	98½	100	— 3
5% "B" ...	128½	117½	117½	—
5% "C" ...	64½	56½	60½	— 1
MERSEY				
Ord. ...	34	30	32½	—
3% Perp. Pref. ...	76	69	70½	—
4% Perp. Deb. ...	117½	103	109½	—
3% Perp. Deb. ...	98	81	90½	—
IRELAND*				
BELFAST & C.D.				
Ord. ...	8½	6	7½	—
G. NORTHERN				
Ord. ...	41½	30½	26	— 3
Pref. ...	63½	52	46	—
Guar. ...	97½	78½	82½	— ½
Deb. ...	107	97½	98½	—
IRISH TRANSPORT				
Common ...	19½	16½	14½	— 1
3% Deb. ...	107	100	100	—

* Latest available quotation

OFFICIAL NOTICES

His Majesty's Colonial Service
The Colonial Engineering Service

ASSISTANT ENGINEERS are required for the Railways and Ports Administration of Tanganyika Territory. Qualifications entitling applicants to consideration are Corporate Membership of the Institution of Civil Engineers, or Degrees or Diplomas recognised by that body as granting exemption from Parts A and B of its examination. Candidates must be British subjects, physically fit, and preferably not more than 35 years of age. They should have had experience of civil engineering work as applied to railways, both construction and maintenance, but candidates lacking this experience may be considered if otherwise well-experienced in general civil engineering construction and if personally desirous of making a career in railway engineering. Appointed officers will be required to design, and supervise the construction and maintenance of, various types of buildings and structures, including wharf walls.

Appointments will be on probation for permanent and pensionable employment within an incremental salary scale which ranges from £450 to £840 per annum, point of entry depending on age, civil experience and length of approved war service. Free furnished quarters are provided and free passages for the officer and, if married, for his wife, on first appointment and on leave. Home leave on full pay is normally granted after tours of 30 months' service at the rate of 5 days for each month of resident service. Cost-of-living allowances at varying rates are at present payable and officers appointed on salaries of £600 or less are granted outfit allowances. Income tax at Tanganyika rates only.

The above salary scale is that within which the engineer would first be appointed, but good prospects exist, and will continue to exist, for promotion to posts entailing greater responsibility. Intending candidates should write at once to the DIRECTOR OF RECRUITMENT (COLONIAL SERVICE), COLONIAL OFFICE, 15, Victoria Street, London, S.W.1, stating age, professional qualifications, and brief details of experience.

QUALIFIED Railway Civil Engineer required for service with London Track Supply Firm. Age 30/40.—Apply Box 154, *The Railway Gazette*, 33, Tophill Street, Westminster, London, S.W.1.

ARGENTINA—LATIN AMERICA. Communications Engineer (Ret.), 30 years executive posts Latin American Railways. Fluent Spanish. Extensive business and social connections. Returning Argentina will undertake representations, commissions, make or renew contacts.—Box 153, *The Railway Gazette*, 33, Tophill Street, Westminster, London, S.W.1.

S.W.1. will be demonstrating the latest type of metal spraying equipment. This process can be used for repairs to engine parts, which makes replacement unnecessary in many cases, and it also enables zinc, aluminium, etc., to be applied to steel as easily as paint, thus affording a convenient means of treating metals for the prevention of corrosion due to water, atmospheric conditions, sulphur gases, etc.

J. Stone & Co. Ltd.—Mr. K. H. Preston, Chairman of J. Stone & Co. Ltd., said at the annual general meeting that uncompleted orders for railway rolling stock equipment still on hand were more than 50 per cent. in excess of what they were a year ago, and represented over 12 months' work. The company, he recalled, had designed and supplied the air-conditioning and lighting for the South African Royal Train, and had been responsible also for the installation of the whole of the complicated electrical equipment.

Vickers Limited.—The Chairman of Vickers Limited, Sir Archibald Jamieson, presiding at the ordinary general meeting of the company, surveyed the activities of the various associated undertakings. The corporation's subsidiary, Taylor Bros. & Co. Ltd., was undertaking a large scheme of reconstruction to the railway wheel and tyre plant, and had changed two of its furnaces to oil firing. Firth-Vickers Stainless Steels Limited was to undertake an expansion scheme costing more than £1,000,000, which would double its capacity for the manufacture of stainless-steel sheets. Manufacture of railway rolling

Crown Agents for the Colonies

APPLICATIONS from qualified candidates are invited for the following post:—
Assistant Transportation Manager required by the Malayan Government for the Railway Department, for one tour of three years, with prospect of permanency. Salary \$850 a month, plus cost-of-living allowance of \$110 a month for a single man and \$160 a month for a married man (Malayan dollar = 2s. 4d.). Free passages. Outfit allowance £60 on first appointment. Children's allowance at the rates of \$70 a month for the first child and \$50 for the second. Candidates, aged 30 to 35, should have served as special traffic apprentices with one of the British Railways selected under their training schemes by competitive examination, or have been engaged direct from a university, and must subsequently have held a responsible executive position. Apply at once by letter, stating age, whether married or single, and full particulars of qualifications and experience, and mentioning this paper, to the CROWN AGENTS FOR THE COLONIES, 4, Millbank, London, S.W.1, quoting M/N/16704 on both letter and envelope.

CORAS IOMPAIR EIREANN requires the services of Junior Civil Engineers. A University Degree or its equivalent is an essential qualification. Experience desirable but not essential. Posts are temporary but will probably last for some years, with prospects of appointment to permanent staff. Apply, giving references and particulars of qualifications and experience, to CHIEF ENGINEER, C.I.E., Westland Row, Dublin, not later than August 22, 1947.

THE PORT OF LONDON AUTHORITY invite applications for the position of Deputy Chief Engineer. The salary will be by arrangement according to age and qualifications, but in any case the commencing salary will be not less than £2,000 per annum.

Candidates must be Chartered Civil Engineers, preferably under 45 years of age. They must have wide experience in responsible positions in dock and harbour construction and maintenance and should have mechanical engineering experience of dock and harbour plant.

The successful applicant will be required to become a member of the Port of London Authority's contributory superannuation scheme in accordance with the terms of the Port of London Act, 1928.

Applications in envelope marked "Deputy Chief Engineer," stating age, full details of training qualifications and experience, and when available to take up appointment, should be sent to the GENERAL MANAGER, PORT OF LONDON AUTHORITY, Trinity Square, London, E.C.3, not later than October 31, 1947.

F. W. NUNNELEY,
Secretary

Crown Agents for the Colonies

APPLICATIONS from qualified candidates are invited for the following post:—
Accountant required by the Government of the Gold Coast for the Railway Department for two tours of 18 to 24 months' non-pensionable service. Salary and overseas pay between £600 and £1,200 a year, according to age, experience and war service. Outfit allowance £60. Free passages. Candidates, age 24 to 34 years, must hold book-keeping and final accounting certificates, be capable of taking charge of a section of a railway accounts office and instructing staff in new or amended simple accounting procedure. Experience in railway accounts, though preferred, is not essential. Apply at once by letter, stating age, whether married or single, and full particulars of qualifications and experience, and mentioning this paper, to the CROWN AGENTS FOR THE COLONIES, 4, Millbank, London, S.W.1, quoting M/N/17137 on both letter and envelope.

LONDON PASSENGER TRANSPORT BOARD.

Applications are invited for post as Temporary Engineering Assistant for Headquarters Drawing Office, Department of Chief Engineer. Applicants should have had sound theoretical training and some practical experience to deal with maintenance problems connected with earthworks, foundations, retaining walls and concrete construction. Applicants should be Associate Members of an Engineering Institution or possess Honours Degree (Engineering) or equivalent. Salary range £300-£550 per annum; commencing salary according to qualifications and experience. The successful candidate will be required to pass a medical examination. Canvassing, either directly or indirectly, will disqualify.

Applications, giving full particulars of education, experience, professional or other qualifications, present remuneration and age, should be sent to the STAFF OFFICER (ER/E437), LONDON PASSENGER TRANSPORT BOARD, 55, Broadway, S.W.1.

REQUIRED for Work in London: Assistants (Senior and Junior) experienced in design and able to undertake surveys and the preparations of detailed working drawings, calculations, estimates, and specifications. Engagement on a temporary basis at a salary of up to £12 per week, according to qualifications and experience. Applications, stating age, experience, etc., with copies of recent testimonials, to Box 145, *The Railway Gazette*, 33, Tophill Street, Westminster, London, S.W.1.

BRITISH WORK ON PERSIAN RAILWAYS. The achievements and difficulties of the R.E.A. during the 15 months in which they laid the foundation for effective aid to Russia. Reprinted from *The Railway Gazette*, February 2 and 16, 1945. Price 1s. Post free. 1s. 2d.

Iron and Steel Production.—Some comparative figures relating to the production of pig iron and steel ingots and castings are given below:—

Steel Ingots and Castings (000's of tons)				
	1947	1946	1945	1944
	Weekly average	Annual rate	Weekly average	Annual rate
First quarter ...	216	11,231	243	12,617
April ...	236	12,294	252	13,111
May ...	244	12,684	262	13,619
June ...	254	13,206	240	12,475
Second quarter ...	244	12,694	252	13,111

Pig Iron (000's of tons)				
	1947	1946	1945	1944
	Weekly average	Annual rate	Weekly average	Annual rate
First quarter ...	134	6,989	146	7,566
April ...	139	7,238	149	7,732
May ...	142	7,378	151	7,860
June ...	144	7,501	152	7,878
Second quarter ...	142	7,363	151	7,827

Pocket Encyclopædia of London Transport.—An A.B.C. of London Transport has just been published. It is a small book designed to tell travellers little-known facts about the 95,000 workers and 17,000 vehicles who carry them about the capital. Subjects are dealt with in alphabetical order, and a vast amount of statistical information is contained under headings ranging from "Acceleration" to "Washing of Vehicles." A table of notable events in the century is given on the last page. An impressive idea of the numbers of employees in the Board's service is provided by the statement that the figure of 94,000 is equal to the combined populations of Aylesbury, Hertford, Guildford, and Sevenoaks. Passengers, too, provide some illuminating statistics. The number carried in a year is nearly twice the population of the world.

Railway Stock Market

With attention centred on the trend in British Funds and also on the Government's austerity plans to bridge the period between the drying up of dollar credits and the operation of U.S. help to Europe, stock markets opened the week quietly, business being on a moderate scale. The recent heavy fall in British funds came as a shock to investors and has had widespread repercussions, marking down of industrial shares having been indiscriminate. Buyers reappeared and leading industrials showed a widespread though moderate rally, Imperial Chemical being 46s. after touching 43s. at one time, and Courtaulds 47s. 3d. after 45s. 3d.

British funds were also slightly above lowest levels touched during the recent heavy fall in values, when 2½ per cent. Consols were down to 82 at one time. There has been rather more business in iron and steel shares, with United Steel, Dorman Long, and other leaders in this sentiment tending to rally, sentiment reflecting fluctuating opinions as to whether in existing circumstances the Government will be able to bring forward proposals for nationalising the industry. The market is taking the view that if nationalisation were abandoned, the good yields obtainable on iron and steel shares would probably attract widespread attention, because dividends seem likely to be maintained; with few exceptions dividend payments last year continued to be conservative and in most cases it would seem there would have to be a very heavy fall in profits to necessitate lower distributions. Stewarts and Lloyds have rallied well, and Babcock & Wilcox attracted attention following the recent fall in price. There have been sharp

fluctuations in leading oil shares, particularly Anglo-Iranian, which were down to nearly £9 at one time before rallying to £10; but later prices again moved erratically.

Nationalisation stocks were not immune from the recent market reaction, although Cable & Wireless ordinary attracted buyers as a safe refuge for money in existing circumstances. On the other hand, securities of companies which are to receive nationalisation compensation in the form of Government stock came in for only moderate attention and were lower on balance, including home rails, despite the protection the latter have from the "take-over" prices. The fall in British Funds has placed irredeemable gilt-edged stocks virtually on a 3 per cent. basis, compared with only 2½ per cent. recently. The assumption is that official support for the gilt-edged market would be forthcoming to maintain irredeemable stocks on a 3 per cent. yield basis.

On the other hand, the City believes that in existing circumstances it would be impossible to re-establish 2½ per cent. for Mr. Dalton's cheap money policy. Moreover, if the present basis persists, British Transport stock would have to bear interest of at least over 2½ per cent., because the terms have to bear relation to the position of gilt-edged stocks at the time of issue.

Nevertheless, home railway stocks have not been immune from the recent set-back in markets, although falls have been moderate when compared with those in British Funds. With the further widening of the margin between current market prices and the take-over levels, home rails should attract more attention.

Having regard to the uncertain conditions affecting markets generally, home rails seem one of the few promising refuges for money during the next few months. They offer scope for moderate appreciation, because apart from the possibility that British Transport stock may perhaps carry interest at the rate of 3 per cent., the terms of exchange in respect of individual home railway stocks will also be determined by the take-over prices stipulated in the Transport Bill.

The recent moderate decline in home rails was not due to selling, which was described as very moderate, but to the small demand in evidence. It would seem that between now and January, when the exchange into British transport stock is to take place, home rails are likely to come into better demand, with prices no doubt gradually approximating to the take-over levels.

Argentine rails recorded fractional gains, sentiment being still influenced by the extent of the support accorded the take-over proposals. Moreover, the stocks have come in for institutional buying as a promising short-term investment, particularly as current prices generally are well below the share-out levels. Buenos Ayres Great Southern 4 per cent. debentures, for instance, are now 95, compared with a share-out level of par, and the 5 per cent. preference at 68 has now reached 7 points below the share-out price.

Among Brazilian rails, San Paulo have gone back sharply to 155, partly on the view that no further dividend payment is likely before the final take-over settlement. Other Brazilian railway stocks were lower, as were Central Uruguay issues.

Traffic Table and Stock Prices of Overseas and Foreign Railways

	Railways	Miles open	Week ended	Traffic for week		No. of Week	Aggregate traffic to date			Shares or Stock	Prices		
				Total this year	Inc. or dec. compared with 1945/46		Totals		Increase or decrease		Highest 1946	Lowest 1946	Aug. 5, 1947
							1946/7	1945/6					
South & Central America	Antofagasta ...	834	27.7.47	£ 47,000	+ £ 16,320	30	£ 1,202,140	£ 962,440	+ £ 239,700	Ord. Stk.	11	10½	11
	Arg. N.E. ...	753	26.7.47	ps.332,600	- ps. 2,800	4	ps.1,184,400	ps.1,247,600	- ps.63,200	"	17	5	11
	Bolivar ...	174	June, 1947	\$109,985	+ \$16,762	26	\$674,863	\$652,358	+ \$22,505	6 p.c. Deb.	6½	5½	16½
	Brazil ...	—	—	—	—	—	—	—	—	Bonds	30	26	33
	B.A. Pacific ...	2,771	19.7.47	ps.2,450,000	+ ps.200,000	3	ps.6,275,000	ps.6,488,000	- ps.213,000	Ord. Stk.	8½	5½	11
	B.A.G.S. ...	5,080	26.7.47	ps.3,606,000	+ ps.290,000	4	ps.12,736,000	ps.13,563,000	- ps.827,000	Ord. Stk.	16	10½	17½
	B.A. Western...	1,924	26.7.47	ps.1,302,000	+ ps.148,000	4	ps.4,947,000	ps.4,577,000	+ ps.370,000	"	19	9½	22½
	Cent. Argentine	3,700	26.7.47	ps.3,232,800	+ ps.123,300	4	ps.11,797,855	ps.12,272,615	- ps.474,760	"	10½	7½	18½
	Do. ...	970	19.7.47	32,577	- 725	3	99,350	105,562	- 6,212	Dfd.	6	4½	14
	Cent. Uruguay	262	Apr., 1947	33,865	- 83	44	286,765	286,820	- 55	Ord. Stk.	8½	3½	19½
	Costa Rica ...	70	June, 1947	29,200	- 6,400	26	179,800	186,275	- 6,475	1 Mt. Deb.	102½	99½	108
	Dorada ...	808	26.7.47	ps.438,600	- ps.19,000	4	ps.1,565,600	ps.1,680,500	- ps.114,900	Ord. Stk.	9	5½	11
	Entre Rios ...	1,030	26.7.47	29,000	+ 5,300	30	959,500	833,400	+ 126,100	Ord. Stk.	26½	20½	3½
	G.W. of Brazil	794	June, 1947	\$1,002,064	+ \$199,162	26	\$6,902,843	\$5,657,516	+ \$1,245,327	"	70	58	86
	Inter. Ctl. Amer.	224	June, 1947	\$111,621	+ \$1,934	26	\$684,382	\$693,542	- \$9,160	5 p.c. Deb.	5	3½	11
La Guaira ...	1,918	26.7.47	71,669	+ 11,393	30	1,936,397	1,676,684	+ 259,713	Ord. Stk.	1	1	1	
Leopoldina ...	483	31.5.47	ps.1,464,000	+ ps.459,100	22	ps.7,706,200	ps.13,441,600	+ ps.5,735,400	Ord. Stk.	1½	1½	1½	
Mexican ...	319	June, 1947	17,386	- 2,592	52	203,575	224,254	- 20,679	"	83/9	71/3	75½-xd	
Midland Uruguay	382	31.7.47	8,855	+ 111	30	135,055	128,031	+ 7,024	Ord. Sh.	78½	60	44½	
Nitrate ...	113	June, 1947	5,359	+ 304	52	67,160	66,419	+ 741	Pr. Li. Stk.	16½	8½	9½	
N.W. of Uruguay	274	25.7.47	£75,097	+ £15,672	4	£202,849	£228,044	- £25,195	Ord. Stk.	119½	52½	155	
Paraguay Cent.	1,059	June, 1947	148,249	+ 10,696	52	1,825,220	1,675,574	+ 149,646	Ord. Sh.	2	1½	2½	
Peru Corp. ...	100	Apr., 1947	cl45,000	+ c6,300	44	cl483,000	cl393,700	+ c89,300	"	...	...	...
San Paulo ...	153½	...	...	...	...	...	...	...	Ord. Stk.	119½	52½	155	
Taltal ...	156	June, 1947	6,205	+ 2,180	52	50,920	41,020	+ 9,900	Ord. Sh.	22½	15½	18½	
United of Havana	1,301	26.7.47	55,057	+ 2,487	4	232,118	216,597	+ 15,521	Ord. Stk.	2	1½	2½	
Uruguay Northern	73	June, 1947	1,176	- 43	52	16,681	20,642	- 3,961	"	...	...	...
Canada	Canadian National	23,535	June, 1947	9,348,000	+ 1,447,250	26	53,060,250	46,539,250	+ 6,521,000	—	—	—	—
	Canadian Pacific	17,037	21.7.47	1,486,750	+ 195,000	29	42,222,750	38,797,750	+ 3,425,000	Ord. Stk.	25½	16½	17
Various	Barsi Light†	202	June, 1947	28,365	+ 9,435	13	80,235	73,395	+ 6,840	Ord. Stk.	123½	111	111
	Beira ...	204	Apr., 1947	80,157	+ 4,547	29	624,106	508,964	+ 115,142	"	94	5	64
	Egyptian Delta	607	10.6.47	15,352	- 940	10	115,725	115,171	+ 554	Pr. Sh.	75	60	72½
	Manila ...	—	—	—	—	—	—	—	—	B. Deb.	85	70	74½
	Mid. of W. Australia	277	May, 1947	18,688	- 1,353	48	185,999	192,189	- 6,190	Inc. Deb.	...	...	...
	Nigeria ...	1,900	May, 1947	376,824	- 32,267	9	731,208	761,991	- 30,783	"	...	...	...
	Rhodesia ...	2,445	May, 1947	591,473	+ 42,592	33	4,408,697	4,066,790	+ 341,907	"	...	...	...
	South African	13,323	28.6.47	1,266,560	+ 125,751	13	15,712,145	13,819,656	+ 1,892,489	"	...	...	...
	Victoria ...	4,774	Apr., 1947	776,548	- 411,075	43	...	...	...	"	...	...	...

† Receipts are calculated @ 1s. 6d. to the rupee